JOSEPH HENRY WOOLLAN

HIS BOOK

OUR ROMAN HIGHWAYS

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BY

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OF LINCOLNS INN, BARRISTER-AT-LAW

AND

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'Of all inventions, the alphabet and the printing-press alone
excepted, those inventions which abridge distance have done
most for the civilization of our species.'—MACAULAY.

PREFACE

In the present work the Roman highway system in
Britain has been treated from a historical rather than a
purely archæological and topographical point of view,
and the authors have therefore abstained from attempt-
ing any detailed examination of the course followed by
the great lines of road with their numerous ramifications
—a task which would have exceeded the limits of their
work, and which has, moreover, been recently very
thoroughly and ably performed by Mr. T. Codrington,
M.I.C.E., F.G.S., in his ' Roman Roads in Britain.'
Similar exigencies of space have also obliged them to
considerably curtail their notice of the towns, villas,
and other monuments of the Roman occupation, and
also to compress into a single chapter their review of
the long period occupied by the gradual conversion of
the remains of the old Roman road system into that
now existing.

They hope, however, that, despite these and other
shortcomings, their work may be found useful at the
present time as an account of what may be termed the

first chapter in the history of the development of transport in these islands. The importance of our highways, which has long been overshadowed by the rapid growth of our railway system, is once more beginning to receive due recognition; and that the history of their first construction is not unworthy of attention is evident from the somewhat remarkable fact that the recently issued Report of the Departmental Committee of the Local Government Board appointed to inquire into the subject of Highway Administration recommends the partial adoption of the Roman principle of management by a central authority. After pointing out that the development of new forms of traction will render long distance through traffic as compared with traffic local to the district or even to the county yearly more important, the Committee state that :—

'The cost of the maintenance of trunk roads for such traffic appears to be a matter for national rather than for local or county provision. The selection of the roads which should be regarded as forming part of such trunk roads, and should be specially subsidized by the State, might be left to the authoritative body suggested by the Royal Commission.* The roads so selected might be known as National Roads. As the State would be making a special contribution to these

* The Royal Commission on Local Taxation.
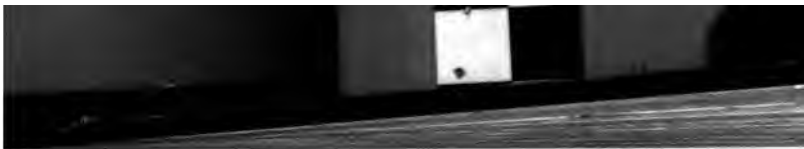
National Roads, it appears to us right that they should be maintained subject to central supervision. This supervision ought to be obtained by means of a central department, which might be a department of the Local Government Board.'*

It was to their national character and their management by the State, as representing the nation, that the Roman roads owed the excellence of construction which has preserved them as the basis of the highway system, not only of this country, but of every other which at any time formed part of the Roman Empire.

U. A. F.
A. C. B.

* Report, p. 10.

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CHAPTER I

HIGHWAYS ANCIENT AND MODERN

*Increased interest in historical objects arising from the intro-
duction of the cycle and the motor-car—Roman roads the
forerunners of the present highway system—Facilities for
transport the primary essentials of civilization—Antiquity
of the history of highways—A journey through Roman
Britain sixteen centuries ago—Highways the most permanent
memorials of the Roman occupation—Numerous sources of
information available for ascertaining the characteristics of
Roman civilization—The Roman annexation of Britain
analogous to similar annexations by modern States—Effects
of Roman civilization on the population of Britain—Its
beneficial results still traceable—The interest of the Roman
highway system to the modern traveller—Plan of the work.*

ONE of the most notable results of the introduction of
the cycle and the motor-car in recent years has been the
enormous increase in the number of people who are
obliged to acquire some knowledge of the geography of
their own country. The publishers of our local guide-
books and maps for tourists must, indeed, have reason
to bless the inventions that have caused so great a
demand for their especial wares by the ever-growing
number of travellers who really feel an intelligent
interest in the numerous objects of historical importance
which they pass in the course of their rambles.

1

Though, however, it would probably be hard to find any reliable map published for the use of the class we are considering which does not indicate certain roads as *Roman*, it may safely be asserted that only a small minority of those who use them are aware that these roads were the forerunners of, and in many respects anticipated, our present highway system. The provision of facilities for transport is one of the primary essentials of civilization; and, as has been pointed out by an eminent authority, it is communication which makes traffic, and not, as is sometimes said, traffic which makes communication. Our familiarity with highways has, however, bred the inevitable contempt, and has rendered us oblivious to the interest attaching to their very ancient history; and we are apt to forget that canals and railways, which successively superseded them for certain purposes of transport, were only rendered possible by the gradual development of the highway itself out of the primitive trackway of earlier times.

It is therefore difficult for a cyclist or a pedestrian making his way over one of the old Roman roads to realize that its foundations were probably laid more than eighteen hundred years ago, at a time when a large area of Britain was occupied by vast forests and impassable morasses :

> 'There rolls the deep where grew the tree.
> O earth, what changes hast thou seen !
> There where the long street roars hath been
> The stillness of the central sea.'

Could the traveller by some magic influence be transported back through some sixteen centuries to the reign of Constantine the Great and pursue his journey,

either drawn at full speed by post-horses in a Government conveyance, or proceeding more leisurely in his own carriage, he would feel that he was travelling in some foreign country which had as little resemblance to the Britain of to-day as that bears to Bulgaria or any other of the States of Eastern Europe. The road itself might be as broad, even, and well-kept as if it had been the work of Macadam himself; but, with this exception, almost everything he would see on his journey would seem as unfamiliar as the gilded coach, with its armed escort and train of baggage-mules, the sumptuous litter borne by obsequious slaves, and the more humble equipages and carts which he would pass on the way. The carefully-kept banks and ditches on either side of it, planted with elms and poplars, supplying leaves for stock on the farms and timber for domestic use; its straightness, and the mathematical regularity with which not only the curiously-shaped milestones, but also the Governmental posting-stations and inns were arranged along its course, would all appear strangely in contrast with the picturesque variety of the winding roads to which he was accustomed; and he would find that these characteristics of the Roman highways contrasted in a no less striking way with the wildness of much of the surrounding scenery. For a time, perhaps, the road follows the course of a river, which is also enclosed between banks, but without trees; and then, crossing the very centre of a wide morass by means of a perfectly constructed causeway, it climbs straight over the steep slope of a rugged hill and descends abruptly into the valley below. Now it enters a great forest, in which copses of oak—the feeding-ground of large herds

1—2

of swine—are mingled with groves of birch, yew, holly, and wych elm, and dense thickets of underwood sheltering the lairs of many a fierce wolf and mighty boar. Interspersed with these are broad glades in which cattle are browsing, and emerging from one of them the road passes into a richly-cultivated country, studded with farms and villas, and traversed by frequent by-roads in which the earthen banks are replaced by hedges. The fields are measured with the same formal precision that characterizes the roads, the cornfields are mingled with vineyards, in many of which the vines are trained on elm-trees, and the ploughs and many of the carts are drawn by oxen. Here, however, the quickset hedges, wooden palings, and stone walls enclosing the cultivated lands take away much of the unfamiliar aspect of the country-houses and farms, which are built on three sides round courtyards open on the fourth to the road, and are chiefly lighted from above, with their few windows principally in the upper stories. At length, after traversing a tract of open moorland rising gradually till it reaches the outlying spur of a range of hills, he sees his road running straight as an arrow across the plain to the Roman colony to which he is journeying. Villas grow more frequent after he has descended the steep slope, some of them approached by small avenues, and he soon finds himself driving through a suburb without the city walls, with straggling rows of shops, rose-gardens, and cemeteries, and beyond them a cluster of thatched huts built of wattles inhabited by Britons, who have taken service with their conquerors. He passes through a massive gateway, and ends his journey amidst the unfamiliar architecture of a city,

the four principal streets of which, as straight as the highroad he has just left, run from the fortified pretorium standing in its centre towards the four cardinal points of the compass, and which, in its basilica and forum, its theatre, public baths, and dwelling-houses, is a copy in miniature of Rome itself.

Detached stretches of highway such as this furnish some of the most striking, and also the most permanent, memorials of the great nation which constructed them in the most remote province of its vast Empire.   As has been finely said by the author of 'Italy and her Invaders,' ' not even the Colisseum of Vespasian or the Parthenon of Agrippa impresses the mind with a sense of the majestic strength of Rome so forcibly as the massive bulwarks of a bridge erected by Hadrian's cohorts over some little British stream unknown to the majority even of Englishmen, or of the square and solid blocks of an imperial guard-house on some remote and solitary Northumbrian moor.'*   Considered in conjunction with the sites of camps and battlefields, the walls and pavements of cities and detached villas, and the mass of ornaments, weapons, and utensils which have been discovered, buried under the débris of succeeding ages, throughout a large part of England and Scotland, these fragments of Roman highways constitute a body of evidence which, when supplemented by the works of contemporary historians, enables us to form a clear conception of the civilization of Roman Britain.

* Hodgkin's ' Italy and her Invaders,' vol. i., Introduction, p. viii.   The old Roman bridge over the North Tyne at Choller-ford, and the Millcastle at Housesteads, furnish striking illustrations of the truth of this statement.

The great road system, of which they formed a part, provided not only the means of effecting and maintaining the subjugation of the island, but also of utilizing its rich natural resources, while the military stations erected on its course formed the nucleus of flourishing cities. This system was therefore one of the most important agencies in the development of the Old World civilization as it existed in these islands from the middle of the first to the close of the fifth century; and though it is now almost forgotten, this period in our national history should possess an especial interest in the present day, since it was the result of identically the same process of acquiring the territories of semi-civilized races, and imposing the civilization of the conquering race upon them, which the great European Powers are now engaged in carrying on in Asia and Africa.

Britain, which now occupies a position in many respects curiously similar to that then held by the great Empire which annexed it in the first century, was to the Romans an unexplored country on the extreme western limits of the world, the natural resources of which were very favourably reported on by the traders of their Gaulish provinces, who had long carried on an extensive trade with its inhabitants. Its addition to their dominions was therefore as natural and inevitable an event as that of the Punjaub to the Indian Empire or of the territories of the North American Indians to those of the United States. The pretexts advanced for its conquest—first, the assistance given by the Britons to their allies, the Veneti, in their struggle for independence against Cæsar; and, on the second invasion, the

necessity for Roman interference in a dispute respecting the royal succession in one of the British kingdoms— also bear a curious resemblance to those advanced in justification of the annexations of European States. Lastly, as in the case of the majority of such annexations, when the subjugation of the island had been completed after fifty years of warfare, we find the nationality of the British tribes, whose want of unity had facilitated their conquest, gradually destroyed by the pressure of Roman rule. By the time that the province had developed from a protectorate under military government into a diocese of the Prefecture of Gaul—with its Vicar or Civil Governor, analogous to our Indian Viceroy, and its treasurer in London, and its Commander-in-Chief, the Count of Britain, at York —the process of 'Romanization' was complete. Only in Cornwall, Devonshire, Wales, and the North of Scotland—all of which were inhabited by tribes practically unsubdued, though effectually held in check, and which stood in much the same relation towards the Roman province as that in which the Afghans and other frontier tribes now stand towards India—was the vitality of the native Britons maintained.

Whether modern Western civilization is destined to prove an ultimate benefit to the Asiatic and African races amongst whom it is now being so widely diffused, is a question which it is obviously impossible yet to answer, but there can be no doubt that the effects of Roman civilization upon the Britons were for the most part purely destructive. Like all the subjects of the Empire, they enjoyed the right of citizenship, and the majority of their cities were governed by municipalities

resembling those of the Italian provinces.   They spoke
the language of their conquerors, and when Christianity
became the religion of the Empire, an organized British
Church was established, the Bishops of which are known
to have attended the Council held at Arles in A.D. 314.
The famous heresiarch Pelagius and the missionaries
St. Ninian and St. Patrick were Britons or Celts ; and
the ' Confession of St. Patrick ' (the earliest prose work
that can be attributed to an inhabitant of these islands)
shows not only that he was the son of a *decurio*, or
hereditary municipal councillor,* but also that Latin
was spoken, and that a Christian Church was established
as far north as the banks of the Clyde.

The Britons displayed the same eagerness to profit by
the advantages of Roman education as the natives of
India now do to enjoy the benefits of an English one.
In Hadrian's time Britain is described as ' conquered by
the Roman schoolmaster,' and these schoolmasters are
known to have included Greek as well as Latin tutors.†
We know of the existence of at least one British Uni-
versity—that of Llantwit, on the Glamorgan coast,
founded in the reign of Theodosius II., of which
St. Iltud was chancellor, and which numbered the
chronicler Gildas and the bard Taliessin amongst its
students—and its establishment in such a remote part

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* According to Mr. Coote, the author of ' The Romans of
Britain' (p. 121), St. Patrick—Calpurnius Patricius—was the
representative of the Italian *gens* of the Calpurnii.   It may be
added that various centurial stones discovered throughout Britain
bear the names of some eighteen other Roman families whose
descendants were settled as colonists in these islands.   See as
to this *post*, p. 74, note †.

† *Cf.* Mommsen's ' Roman Provinces,' vol. i., p. 194.

of the province makes it probable that there were others in the more important centres.

But, as is shown by the bulk of its monuments and by its greatest work, the Wall of Hadrian, Britain remained during the greater part of the Roman occupation mainly a military department of the Empire—the province farthest removed from the great centre of the Old World civilization, and deriving its importance solely from its wheat-crops and mineral products, from the tribute exacted from its inhabitants, the recruits it furnished for the legions, and the slaves it provided for the Roman market. The civilization of the Roman period is believed by some to have been at its zenith far superior to that enjoyed in these islands at any subsequent period down to Elizabethan times ;* but this was the case presumably only in certain favoured districts, such as Gloucestershire, Yorkshire, and perhaps Middlesex, and only the more important classes among the British tribes can have benefited by it.

'Temples there were,' says Kemble, ' forums, porticoes, baths, and luxurious feasts, Roman manners and Roman vices, and to support them loans, usurious mortgages, and ruin. But we seek in vain for any evidence of the Romanized Britons having been employed in any offices of trust or dignity, or permitted to share in the really valuable results of civilization.'†

As, in accordance with Roman policy, the Britons enlisted in the legions were almost entirely employed on foreign service, and the legions quartered in Britain were recruited from every province of the Empire, the

* *Archæological Journal,* vol. xlvii. (1890), p. 365.
† 'The Saxons in England,' vol. ii., p. 281.

population at the close of the Roman occupation had become a heterogeneous mixture of all the nationalities in Europe. That the courage and physical capacity of that population was not, as is maintained by some writers, hopelessly deteriorated by Roman civilization is proved by the fact that, after its abandonment by the Empire, the free province of Britain maintained an equal struggle against the Picts and the Saxons for thirty years,* as well as by the slow progress of the Saxon occupation; but it was undoubtedly due to that civilization that the inhabitants of the province had then long ceased to be British except in name.

Injurious, however, in some respects, as were the effects of Roman civilization upon that portion of the British race which came within its operation, it produced in Britain, as in other provinces of the Empire, results of an entirely different character, which have been of the highest value to the two conquering races, which in turn succeeded to the Roman dominion in these islands.

In the first place, the Roman Empire bequeathed to its successors the tradition of organized government, and also, in its municipalities, examples of the methods of civil administration which served as models both to the Saxons, who were already familiar with their working on the Continent, and to their Norman conquerors. Again, we are indebted to the Romans not only for the clearance from dense primeval scrub and undergrowth of the river valleys, which seemed to them the most favourable localities for agriculture, but also for many of our existing customs with respect to the tenure

* 'The Making of England,' pp. 26, 27.

and cultivation of land. In addition to this, the Metropolis, the seats of our two archbishoprics, and many of our old borough towns, occupy the sites of old Roman cities which have had in many cases a practically uninterrupted existence since their foundation. And, lastly, most of our principal highways, and in many instances our railways, which are as indispensable to our national existence as the arteries are to that of the human body, follow, as has been said, the lines of the great Roman road system on the course of which these cities arose.

The history of that system, which is thus inseparably connected both with our own and with the Roman civilization, therefore offers many points of interest to the modern traveller, who benefits by the labours of a departed civilizing race. An immense amount of information with respect to the Roman occupation has been collected by the laborious research of antiquaries and local archæological societies during the last two centuries, and many valuable works have been written on the subject, but in these the Roman highway system has necessarily received only a cursory notice. The very mass of this material and the number of the volumes in which it is recorded may well alarm the ordinary inquirer, who has, perhaps, neither the time nor the inclination to devote long hours to its especial study, and it is therefore the object of the present work to provide him with a modest summary of the knowledge thus accumulated with respect to the Roman highway system.

Of the two maps which accompany this volume, the first indicates some of the physical features of Britain and

the positions of the most important British tribes prior to the Roman conquest, while the other is a delineation of the road system and principal cities in Roman Britain at the time of its abandonment by the Empire. It is proposed, after briefly reviewing the physical and political condition of Britain when the Romans began the work of road-making, to describe the origin and growth of their highway system, the methods of constructing and the regulations for maintaining it, the Roman vehicles and modes of travelling, and the more important cities, camps, and other works which still bear witness to the Roman occupation. An account will also be given of the obliteration and eventual conversion into our present highway system of the old Roman roads, and also of the various means by which these roads have been identified; and the text of the principal contemporary authorities on the subject, together with a list of Roman towns and the more important Roman camps, have been added for purposes of reference as Appendices to the work.

BRITAIN

(Shewing supposed position of the principal British tribes, & the distribution of largest forests.)

Forest area

Marsh & Fen

CALEDONIA

BRIGANTES
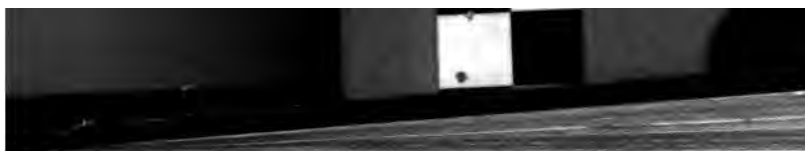
CHAPTER II

BRITAIN BEFORE THE ROMAN CONQUEST

Changes in the physical features of our country since the earliest historical period—Forests and fens formed the tribal boundaries in pre-Roman Britain—And were the chief natural obstacles to Roman road-makers—The greater part of Scotland at that period forest and morass—Trees indigenous to Britain—British food and mineral resources—Manufactures and commerce in the pre-Roman period—Corn and men the most valuable assets of the island—Misuse by the Romans of the natural resources of Britain, and its consequent loss by them.

As has been already mentioned, the physical features of Britain at the time of the Roman invasion were widely different from what they now are. Great as are the changes that since then have occurred in the general configuration of the country, it is probable that the alterations in such details as the areas of woodland and cultivation, and even in the character of the vegetation, are far greater.

The coast-line itself has materially altered since the time of the first landing of the Romans, owing to the following causes. Alluvial soil has been continuously washed down to the estuaries of the rivers, and has there formed deposits. In other places, where the shores have been of a soft and friable nature, they have

constantly been eroded by the action of the waves, and the stolen material has often been swept along the coast until it has been arrested by some projecting point of land, where it has made an encroachment on the sea. Finally, though to a comparatively small extent, as was to be expected in so short a geological period, the upheaval or depression of the coast-line by subterranean action has caused a gain or a loss of land.

As regards the rivers, they were generally more rapid and also more constant and larger in volume. They ran in shallower beds, and the flood water ran off more slowly. They were fordable in far more places than at present, and it is, for instance, believed that the Romans under Aulus Plautius were able to ford the Thames near London Bridge. Springs were more plentiful, and in many parts of the country they were nearer the surface. The general drying up of the country, the full effects of which are only now beginning to be realized, has been continuously progressing with the destruction of the forests from the Roman times to the present day, and springs and river-beds are believed to be lower now than they have ever been in historic times. The great forests that then covered huge areas of the country not only tended to increase the rainfall, but, especially when they spread into the alluvial flats and river bottoms, acted as great sponges, and retained water which at present runs off after every heavy rainfall. The Fens were of much greater extent than they are now, and south and west of the Wash they covered an area of at least sixty miles in length from north to south, and from twenty to forty miles in width from east to west. The mouth of the

Thames was a wider estuary than at present, and probably more resembled the Wash in configuration, while large fens and salt marshes extended along the shores of Kent and Essex, where the tidal waters are in our times kept back by embankments.

It is worth while to enumerate the more important changes that have occurred since Roman times, and it will be convenient to begin at the South-Eastern Coast of the island, as being the first point of communication between Britain and Gaul.

We find that Pevensey, Winchelsea, and Lympne, all now between one and three miles inland, were Roman seaports and naval stations, and that Sandwich was then a small island between the mainland and the Isle of Thanet. Two branches of the river Lym, or Rother, which now enters the English Channel at Rye, formerly flowed out by Lympne (Portus Lemanis) and West Hythe, and are now silted up. So late as the eleventh century a hostile fleet was able to sail up the Stour to Canterbury, while the Witham was navigable by the Danes up to Lincoln and the Ouse up to Ely.

Following the Eastern Coast, we note that a Roman fortress stood at Reculvers (Regulbium), the remains of which, now practically washed away, were untouched by the sea in the sixteenth century; and near this, on the site of the modern village of Richborough, was the important seaport of Rutupiæ, which formed the principal station for landing and disembarking the Roman legions. The great change in the character of the Thames estuary has already been noticed, and the Roman station of Othona, an important fort

on the Saxon shore during the latter years of the Roman occupation, can now only be identified by the remains of a port that is further inland than the old harbour of Bradwell in Essex; while Wisbeach and Holbeach, now from five to ten miles inland, were both towns on the seashore in Roman times. On the other hand, the sea has encroached on the coast of Norfolk and Suffolk, and two Roman forts have disappeared beneath it between Weybourne and Happisburgh.

Further north, in Durham, Roman remains are found in the sands of Seaton, and vast submarine forests here extend along the coast; but South Shields, where the Romans built a fort, has ceased to be an island. On the West Coast of England there seem to be fewer instances of change, but the sea has in places encroached on the coast of Lancashire; while we learn from Tacitus that when the Romans invaded Anglesea, the channel separating it from the mainland was then shallow enough to be forded by cavalry. On the South Coast, so late as the time of Edward the Confessor St. Michael's Mount in Cornwall was known as St. Michael's on the Sea Shore; but the coast-line has advanced about the mouths of some of the rivers in South Devon, and there appears little doubt that in Roman times Portland was actually an island, while Porchester has ceased to be a seaport, owing to the silting up of the head of Portsmouth Harbour. In the interior of the island we find that the Fen districts and forests made a series of great barriers against inter-communication. Kent and Sussex were separated by Romney Marsh as well as by the eastern part of the great forest of Anderida, and the fens of Sedgemoor

divided two British principalities; while the great fresh-water swamps caused by the united waters of the Don, Ouse, Trent, and Idle, in the centre of which stood the Isle of Axholme, combined with the forests of Elmet in Yorkshire, Sherwood in Nottinghamshire, and the Peak in Derbyshire, to shut off Northumbria from Southern Britain. The Romans drained some of the Fens and threw causeways over others when obliged to take their roads through them; and in some cases they were compelled to take their roads through the great forests, but when laying out their military ways they avoided doing so as much as possible.

Andreads Weald, or the forest of Anderida—the largest of the English forests—was even in Alfred's time 120 miles long and 30 miles broad, and extended from the mouth of the Rother across Sussex and a considerable distance into Hants, and its real dimensions may at one time have been even greater. In Cæsar's time it separated the Cantii, Regni, and Belgæ from each other. The forests of Essex and South Cambridgeshire combined with the Fens to draw a natural boundary round the Iceni in East Anglia, and the great Wirewood of Worcestershire, the woods of Oxfordshire, the Forest of Dean, and the Somersetshire marshes, all contributed to the isolation of the British tribes; while Selwood Forest in Wiltshire — probably the Verlucio of Antoninus' Itinerary—formed the north-western boundary of the Belgæ, which tribe was also isolated from the Durotrigæ in Devonshire by the Silva Alauna (New Forest), and protected on the north by the forest of Speen, which may have spread along the valley of the Kennet from the still existing forest

of Savernake to Reading and Windsor. It is this last forest which probably appears in Asser's Saxon Chronicle as the Bearrac (or Berruc) Wood, from which the modern name of Berkshire is derived. An instance of the survival of a British name under a Roman disguise is found in Gwent, the name given to open country surrounded by forests. There were several districts termed ' Gwent ' in Britain, and the word was Latinized into Venta, and applied to towns in these areas, as in the case of Venta Belgarum, Venta Icenorum, Venta Silurum. Denbighshire so late as the fifteenth century remained an immense forest, and it was said that in comparatively modern times a squirrel could traverse the whole length of Warwickshire by leaping from tree to tree in the forest of Arden. The forests near Hadrian's Wall were in course of time cut down for the use of the numerous stations established along it, and were probably of far less extent than those further south.

These great forests influenced the direction of the Roman roads more than any other physical cause, and were, as has been pointed out, the chief agencies in isolating the British tribes from each other. The mountainous districts of England being mainly in the north and west of the islands, were of less strategical importance, and it must be remembered that the Roman roadmakers had little dislike to steep gradients, but a very strong objection to taking a road through a district where sudden attacks from an ambushed enemy might easily be made. It has been already noted that the rivers were more generally fordable than at present ; they were easily bridged when necessary, and must have appeared insignificant obstacles to the constructors

of the great highways of Central Europe and Asia Minor.

In Scotland the physical difficulties of the country were far greater than in England, and a colder and a wetter climate made the country even less attractive to invaders from the South. In the West, to quote the author of 'Caledonia Romana,' 'the country of the modern Lennox, covered with interminable forests and capped by perpetual clouds, proved sufficient to arrest the march of the legions while in the neighbourhood of Dumbarton, and to induce them, it may be presumed, to set up the altars of the unyielding Terminus at no great distance from their seaport on the Leven.'* The Clyde itself appears to have flowed at no very distant epoch round Dumbarton Castle, and in several places down this river there is evidence that the land has encroached on the sea.† On the East Coast the entire district of the valley of the Carron appears to have been covered by the sea when the Roman forces held the Wall of Antoninus, as was probably the whole of the plain between Grahamstown and Inveravon, where a road has been cut through a bed of fossil oysters on a terrace several miles from the sea; and the discovery of a whale's skeleton in the valley of the Forth, some twenty-five feet above the present tide-level, points to a general upheaval of the land in this direction.

A labyrinth of swamp and forest covered the south-western portion of Dumfriesshire, while the hilly districts of Kirkcudbrightshire and Wigtownshire were largely interspersed with lakes and streams, and the

* 'Caledonia Romana,' p. 179.   † Ib., p. 178.

mountainous country towards the German Ocean was thickly covered with forest and morass. The great forest of Calydon, which gave the name of Caledonia to the country north of Antoninus' Wall, spread from the district of Athol in Perthshire to Sutherlandshire, descending on the west to the Peninsula of Cantire, and thence running east to the banks of Loch Lomond. 'Impervious from the thick growth of trees and under-wood, it was,' we are told, 'infested with wolves, wild cattle, and boars, and, according to some accounts, the grizzly bear has even been known to revel in its dark recesses. Black craggy mountains and dismal swamps of great extent may have afforded some variety to the landscape, although they would add nothing to its attractions.'* It was this great natural boundary that seems to have formed the real limit of the Roman dominion in Scotland.

As the forests of Britain have played so important a part in the national history, it is interesting to notice what variety of trees were known in the island at the time of the coming of the Romans. Oak, birch, willow, alder, ash, mountain-ash, hornbeam, Scotch pine, maple, holly, and hawthorn, are believed to have been indigenous to this country, and probably also the beech, despite Cæsar's statement to the contrary, which may be intended to refer to the sweet chestnut, and the fact that no certain record exists of its presence in England prior to the twelfth century. So, too, were the apple, hazel, elder, sloe, raspberry, and blackberry. On the other hand, it is to the Romans that we owe the

* 'Caledonia Romana,' p. 15, and cf. pp. 11-20.

introduction of most of our fruit trees—the cherry, peach, pear, mulberry, fig, damson, medlar, quince, walnut and vine—and among forest trees the sweet chestnut and lime, and probably the plane and sycamore. The lime is known from records to have existed in the tenth century. Other species of trees now considered quite common are known to have been of more recent introduction.

Examining these lists, it is curious to see how the sometime exotic trees have identified themselves with the typical English landscape of to-day ; and when we hear a not infrequent protest raised against the planting of trees still unnaturalized in our country in preference to those trees we know and love, and which are so harmonious to our English scenery, it is well to remember that there must have been a time when many of the latter were themselves strangers in the land that has adopted them, and must have been then regarded as freakish curiosities.

It would be out of place here to comment at length on the fauna of Britain at this period, but it may be of interest to note that there were two distinct kinds of cattle, the long-horned white cattle—the *urus*, which roamed wild in the forests—and a short-horned domesticated variety which was much smaller. The horses also were small, and little more than ponies. The wild boar as well as the wild ox were objects of the chase so late as the time of Henry II., when the citizens of London were accustomed to hunt them in Middlesex, and wolves did not disappear from England till the fifteenth century. Beavers existed at one time in England, but if they were still to be found in the Roman period they

must have been rare.* The citizens of Norwich are supposed to have presented a bear annually to Edward the Confessor, but this may have been as apocryphal an animal as the white bull with red ears and nose that certain parishes in the Midlands are still supposed to give under specified conditions to the present Duke of Buccleuch; and though the exact date is unknown, the bear probably disappeared from Britain about the same time as the beaver. Among the refuse of Roman settlements in Britain, as at Silchester for example, large quantities of oyster-shells are usually found; but there is a more curious survival of an imported Roman delicacy in the edible snail (whose ancestors must have escaped from the 'Cochlearea' of a Roman epicure), which is still found in England in different localities, but never except in the vicinity of former Roman cities or villas.

As regards the mineral wealth of the country, the tin-mines of Cornwall had been worked for a long period anterior to the Roman invasion. The Romans smelted iron in the forests of Dean and Anderida, in Shropshire, at Alcester (Alauna) in Warwickshire, and in Northamptonshire. They mined for copper at Llanymynesh in Shropshire, where skeletons of the miners, their tools, and coins of Antoninus were found in A.D. 1761. Lead-mines also were worked in Derbyshire, the Mendips, Shropshire, and Wales, and probably British lead was one of the most valuable products of the country, and was obtainable in very large quan-

* A charter of 944 mentions a ' Beaver Island ' in the Kennet, which points to the tradition of the former existence of this animal there. See Cooper King's ' History of Berkshire,' p. 74.

tities at or near the surface. Among the most interest-
ing of our Roman remains are the inscribed pigs of lead
from these mines, of which nearly fifty have been dis-
covered at various times distributed through almost
every part of Roman Britain. The inscriptions on the
pigs which have been found show that they were made
at different dates from the time of Claudius to that of
Hadrian, and indicate that the Romans began working
the lead-mines almost immediately on their occupation
of the island. This mineral was used most freely in
Roman sanitary work, as may be seen by the remains
of lead piping and lead-lined baths. The great bath
at Bath (Aquæ Sulis) was entirely lined with lead at
the time of its re-discovery, but the greater part of
the metal was sold, and only specimens of it are still
preserved. Coal was worked in the Forest of Dean and
in the North of England, and stores of unburnt coal
have been found in stations on the great Wall of Hadrian,
in the neighbourhood of which firewood may latterly
have become scarce. Gold may have been obtained to
a slight extent, and more probably silver, as the same
ore contained silver and lead. Traces of silver refineries
have been found at Silchester, though perhaps the silver
may have been here extracted from coins or ores which
were composed mainly of copper with a mixture of
silver, as well as from lead ore. Pearls also are men-
tioned as a product of Britain, but the value of this
source of revenue must be considered very doubtful.

The Romans had manufactories in the island of
pottery, terra-cotta, glass, bronze, and jet ornaments.
The pottery industry must have been of some impor-
tance, and dated from a pre-Roman period. There appear

to have been two main centres for this, at Upchurch on the Medway, where a bluish-black pottery was made, and at Castor (Durobrivæ)—not to be confounded with another Durobrivæ (Rochester in Kent)—where the works extended at intervals for twenty miles along the Nene, and where 2,000 men are believed to have been employed. This latter pottery may be recognised by the designs on it, often pictorial, which are generally in white relief. There also were pottery works in Hampshire, Shropshire, and possibly in other counties. The well-known 'Samian' ware, which is of a finer quality, was apparently imported from the Continent.

The trade in leather and hides may have been of some importance, but, after all, the conclusion is unavoidable that the chief return the Romans obtained for their outlay in the conquest and retention of Britain was a fresh source from which they could supply themselves with corn and men. It is certain that the younger male population of the island was continuously and cruelly drawn upon to recruit the Continental armies, and the remainder of the able-bodied population was used either (in conjunction with the legionaries) in labour on public works, or in agriculture under Roman masters, or under masters who had adopted Roman methods.

We know that corn was largely exported from Roman Britain, and that it was considered a valuable asset to the Empire. It had to be grown at a profit, and it is possible that, to attain this end, the position of the unfortunate native agriculturist may have been made more wretched than it has been at any subsequent period of our history, for the Roman had the means of insuring

cheap labour, and there is no reason to suppose that any sentiment stood in the way of his so doing. In comparing Roman with modern times, one of the greatest of differences that occurs to the inquirer is the total absence in the former period, for all practical purposes and in the ordinary uses of life, of labour-saving machinery—a difference which, more than any other, makes the resemblance of Roman civilization to our own in great part merely superficial. It is therefore hard to resist the conviction that towards the end of the Roman occupation a numerical deficiency of the male population throughout the cultivated area of Britain combined with the heavy local taxation to render the ownership of agricultural land even less profitable than it now is, and to make the decay of agriculture more rapid and complete than it is in our power to realize. The decay of the Roman system of intercommunication must have commenced with the impoverishment of the country, while the withdrawal of the relics of the Roman army deprived the central authority of the only instrument by which the maintenance of the roads could be enforced. In a later chapter some account will be given of the gradual obliteration of these roads and of the embodiment of such parts of them as survived in our present highway system.

CHAPTER III

THE HIGHWAYS OF THE BRITONS

The task of the Roman road-makers possibly assisted by British tracks already in existence—Divergency of opinion on this matter—Summary of our information regarding pre-Roman Britain—A comparative account of the civilization attained by different British tribes—Their fortifications—Principal settlements—Commerce—Coinage—Religion—Indications of Mediterranean influences—Commercial routes necessitated by the tin trade—The evidence of Cæsar regarding British roads—The opinions of modern investigators examined—Probable characteristics of pre-Roman roads in Britain—Traces of these that still exist—Hindrances to their construction on a comprehensive system—British civilization progressive—At its highest level at the time of the Roman conquest—How roads may be obliterated—Localities where pre-Roman roads may most probably still be found.

IT will be evident, from the preceding chapter, that the Roman road-makers had to contend with physical difficulties of considerable magnitude when they began to lay the foundations of their highway system, the history of which must be considered to date from the commencement of the Roman conquest of Britain by Claudius in A.D. 43. It is, however, not improbable that their task may have been in some degree facilitated, at least in the southern and south-eastern parts of the

island, by their adoption—as in Asia Minor and else-where in the Empire—of portions of roads which they found had been constructed prior to their arrival. There has been considerable difference of opinion amongst archæological authorities as to the extent to which the Romans were assisted by the existence of such roads in Britain, and it will be well, therefore, to state briefly what is known of the earlier inhabitants of the island, and to endeavour to form some estimate as to the relative state of civilization they had attained at the time of the Roman invasion.

The Palæolithic race which first peopled these islands succumbed to a Neolithic people of Iberian origin, probably a cognate race to the Basque population of the Pyrenees, which in its turn suffered from a successful invasion of Goidelic or Gallic Celts ; while a still later wave of invaders, consisting of Brythonic or British Celts, was apparently powerful enough to press before it into the northern and western districts all the previous occupants of the country. At the time of Cæsar's invasion these Brythonic Celts inhabited the greater part of Southern Britain, the earlier races remaining in possession of the country west of the Mendips and the Stour River in modern Dorsetshire, of South Wales, and of the country about the Solway Firth ; kindred to them also were the inhabitants of Ireland and the Isle of Man.

There is no doubt that the Brythonic tribes were more highly civilized than their predecessors. The appellation, ' Brythonic '—from which the name of Briton is supposed to have been derived—means a people clad in cloth, as distinguished from one clothed

in skins, which probably were the earliest form of human dress, and the Britons are known to have been adepts in the arts of spinning and weaving. They manufactured and decorated pottery, and understood the art of working in metal sufficiently to make swords, spear-heads, and daggers, and the formidable scythes that were attached to their war chariots; and they have left abundant evidence of their skill in carpentry in the shape of well squared and holed beams, wheels, ladders, and buckets, as well as dishes and bowls, many of the latter ornamented with incised patterns, which at different times have been disinterred at Glastonbury and other places. In addition to their war chariots, the Britons were familiar with at least three other kinds of vehicles, which were also in use among their kinsmen, the Gauls, and all of which, as will be seen in a later chapter, were adopted by the Romans from the latter nation. They were skilful hunters, and exported the skins of the animals they killed, and kept flocks and herds, horses and hounds, both of the last-named animals being used in warfare as well as in the chase; and they also cultivated wheat, cultivation in common probably being the rule, though portions of the tribal lands were assigned to the kings. Their dwellings, like those of the Gauls, were thatched circular huts of wattle and reeds cemented with clay, and perhaps, in some cases, built on stone foundations. Traces of villages constructed by lake-dwellers have been found in parts of England, as at Glastonbury; but these remains of an earlier race than the Britons must not be confused with the 'oppida' described by Cæsar, which appear to have been palisaded enclosures in dense forest country, and

constructed as refuges in times of danger. To the Britons also must be attributed many of the formidable earthworks, which in some cases served as tribal boundaries, found in the South of England—such as the Wansdyke, which runs from the mouth of the Severn to an unidentified point on the Thames near Reading—and the great circular camps of concentric ramparts and ditches, such as those found at Holmwood in Kent, St. George's Hill, near Weybridge, and St. Katherine's Hill at Winchester, and which extended in a chain along the summits of the Southern hill ranges. The majority of the permanent settlements of the British tribes were either near the sea or on navigable rivers, showing that water carriage was a frequent mode of transit—as, for example, London on the Thames, Colchester on the Stour, Rochester on the Medway, Peterborough on the Nene, and other settlements on the Ouse, the Severn, and the Exe.*

We also know from Cæsar's narrative that the Britons carried on a considerable maritime trade, exchanging live-stock, hides, tin, iron, and slaves for articles of luxury, such as glass, earthenware, articles of bronze, or personal ornaments. They used hides for tents and sails, as well as for clothing, and had attained some skill as shipwrights, their vessels being described as seaworthy, and also possessing certain characteristics that distinguished them from ships previously known to the Romans, which made them adaptable for deep-sea navigation as well as for use in tidal waters.

The tribes appear to have been governed by kings of

* See a paper by Mr. Alfred Taylor, F.G.S., *Archæologia*, vol. xviii., p. 229.

a similar type to those who held sway in Ireland till the English conquest, and as their laws to some extent allowed the accumulation of land in private hands, a territorial aristocracy probably existed similar to that found by Cæsar in Gaul.   In the southern and eastern portions of the island a coinage was in circulation which included not only coins of iron, copper, and silver, but also of gold, on which the effigy and name of the sovereign was inscribed.   These coins appear to have been copied from Greek models, and the art of coining, like their use of the Greek character, appears to have been derived from Mediterranean tribes with whom commercial intercourse was held.

As regards the religion of the British tribes, comparatively little can be said with certainty.   It is believed by some authorities to have inculcated the cruel rite of human sacrifices, but this charge against it has never been fully substantiated.   On the other hand, it is known to have taught the doctrines of a future state of existence, in which rewards and punishments were allotted, and of the transmigration of the soul. The lasting memorials of their sacred edifices, which have been left in the great Druidical circle of Stonehenge, in the probably even earlier temple at Avebury, and elsewhere, indicate a definite knowledge of the movements of the heavenly bodies; and the report recently made to the Royal Society by Sir Norman Lockyer and the late Mr. Penrose on the result of their investigations with a view to ascertaining by astronomical observations the date of the construction of Stonehenge, suggests that its builders may have been believers in one of the oldest religions of the world.
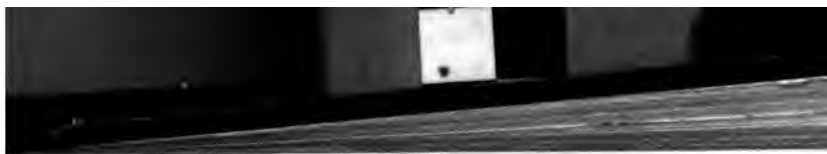
Sir Norman Lockyer and Mr. Penrose were of opinion that Stonehenge was a solar temple similar to others of the kind examined by them in Egypt and in Greece, and that it was probably erected between the years 1680 and 1480 B.C.; and they pointed out that, according to Cæsar, the subjects taught in the schools of the Druids included the movement of the stars, the size of the earth, and ' the nature of things '—studies demanding a long antecedent period of civilization.   From Cæsar, too, we learn that the Gauls were in the habit of visiting Britain to study civil and religious laws, and that, though religious instruction was imparted orally, the Britons used Greek letters in their public and private transactions, a practice which, considered in conjunction with what has been above stated regarding the British coinage, indicates continued contact with civilizing influences from the Mediterranean seaboard, and the probable presence of considerable numbers of immigrants from those shores.*

Considering all these facts, there seems little doubt that throughout a considerable part of the island British civilization must have been sufficiently advanced, even at the time of Cæsar's invasion, to render the construction of some sort of highways an absolute necessity. The points that really are in doubt are, firstly, the extent of the country intersected by tracts sufficiently well established to deserve the name of roads; and, secondly, the characteristics of these roads.   As regards the first question, Cæsar has given us the names of some thirty-five tribes (or, more probably, of tribes and tribal

* See a paper by Dr. Phéné in the *Journal of the British Archæological Association*, June, 1897.

subdivisions), the names of some of which, as the Cantii
and Ratæ, still survive in such English names as Kent
and Rutland.

These tribes had attained very different stages of
civilization, and it may be supposed that the more
backward of them, such as the non-Brythonic Silures in
Wales, and possibly the Brigantes in the North, had
not progressed sufficiently to undertake such work as
permanent road-construction. The Damnonii in Corn-
wall and Devon may have been equally unprogressive in
some respects, but the tin industry, to which further
reference will presently be made, had necessitated the
use of regular trade routes throughout their territory.
On the whole, it would appear probable that of the tribes
inhabiting the country south of the Tyne and Solway,
only about half could be described as civilized, and in
their territory alone could roads possessing any perma-
nence be in existence. It remains to examine the very
limited evidence we possess as to the existence and
character of roads in these more civilized parts of the
island in pre-Roman times, and to indicate the lines of
argument taken by the antiquarian experts, who, on
the one hand, claim to identify the medieval trade
routes with the early British roads, or, on the other
hand, refuse to admit the existence of any British roads
at all.

The earliest indications of the existence of roads in
Britain are found in the writings of Diodorus Siculus, a
writer who was contemporary with Cæsar and Augustus,
and who embodied in his books the works of earlier
geographers which in many cases are no longer in
existence.

We here find* ' the dwellers at Belerinum, a cape of Britain,' described as being civilized in their habits through intercourse with foreigners, of whom they are especially fond, and transporting in waggons the tin that they smelted to a certain island near the coast of Britain named Ictis, where it was bought by merchants, who, travelling by land for about thirty days through Gaul, brought the loads on horses to the mouth of the Rhone.   And it may be noted, as pointed out by Mr. Tyler,† who identifies Belerinum with Cornwall and Ictis with the Isle of Wight, that this description of the land-carriage as having been by waggons in Britain and by pack transport in Gaul seems to show that the roads in the former must have been superior to those in the latter country.   In Cæsar's account of his campaign against Cassivelaunus we find another reference to British roads, for he tells us that the British King, after the battle at the ford on the Thames, used to send out his chariots, from the woods into which he had withdrawn, *by all the well-known roads and paths* to attack the Romans who were occupied in seizing the British crops and cattle, and that consequently the Roman soldiers were forbidden to stray from the *roads* on which they marched.

This statement is relied on by Dr. Phéné, who has discussed the question of early British civilization in a series of interesting papers read before the Archæological Society and other kindred associations, in which he claims to identify the Fosse Way, Ermine Street, Icknield Street, and Watling Street as of pre-Roman

* Diodorus Siculus, vol. v., 22.
† *Archæologia*, vol. xlviii., pp. 228, 248.

origin.   He further suggests * possible Greek deriva-
tions for the tribal names Trinobantes and Iceni, which
indicate the occupation of these tribes as travellers by
roads and carriers of merchandise, of which hides and
salt were probably an important part.   Col. Cooper
King, in the section of 'Social England't dealing
with this subject, also claims a pre-Roman origin,
not only for the so-called royal roads, the Fosse Way,
the Ermine, Watling, and Icknield Streets, but also for
the Akeman and Ryknield Streets and the Via Julia.
Mr. Tyler ‡ considers that these routes were probably
irregular and winding, unmetalled, and frequently worn
below the level of the surrounding country by traffic,
that they ran from the higher country to points where
the rivers were fordable, and that, with some notable
exceptions, they were not durable roads, but rather
tracks from the high ground—where the Britons largely
resided—to the shipping ports, wattles being used to
strengthen the way in the valleys, especially over clay
ground.   Traces of narrow causeways constructed of
stone blocks irregularly laid on the surface of the
ground, and which have been ascribed to the Britons,
have been found in Devonshire and other parts of
England ; while on Dartmoor, where there is a causeway
of this kind between 5 and 6 feet wide, bridges said
to be of British origin, built with blocks of solid
granite laid on piers of the same material, still form a
road for horsemen and foot passengers, and a notable

* *Journal of the British Archæological Association*, June, 1877,
pp. 99-101.
  † 'Social England,' pp. 50, 51.
  ‡ *Archæologia*, vol. xlviii., pp. 229-324.

example is to be seen at Postbridge.* A road from Earith in Huntingdonshire, across the fenland of Cambridgeshire to Downham Market in Norfolk, has also been discovered, which is believed to be of British origin, in which wattles or fascines have been laid beneath the stones, and have been accidentally preserved by the presence of carbonate of iron in the water.

Mr. Wright, who represents another school of archæologists, considers, on the other hand, that the fragments of so-called British roads represent in reality Roman country roads (*agrariæ*) or Roman by-roads (*deviæ*). He is of opinion that there is little probability that the Britons, divided as they were into separate and hostile tribes with ever-changing boundaries, could have been great road-makers,† and he points out how greatly inter-communication must have been hindered by the large tracts of forest and fenland. The Belgæ, for example, one of the most civilized of the British tribes, had a forest boundary on every side of their territory —Andreads Weald on the east and south-east, Cranborne Chase and Selwood Forest on the west, and Speen Forest on the north—while some of the smaller tribes must have been almost completely isolated, as, for instance, the Regni in Sussex, who were shut in by Andreads Weald, and who must have been confined to

* *Archæologia,* vol. xlviii., p. 229. *Cf.,* too, as regards trackways in Devon and Dorset, Phelp's ' History of Somerset,' p. 84 *et seq.,* ' Ancient Dorset,' by Charles Warne, pp. 29, 130, and ' Ancient Britain and the Britons,' by S. W. Barnes, p. 42, and in Berks, Cooper King's ' History of Berks,' p. 19 *et seq.*

† ' The Celt, the Roman, and the Saxon,' pp. 222, 223.

the coast-line between Chichester and Brighton and to
the Valley of the Ouse about Lewes.

It should, however, be remembered that the explora-
tion of Central Africa has taught us that savage tribes
can make paths for themselves through the densest
forests, and Mr. Pearson points out in his ' Historical
Maps' that 'thick as were the woods, there were open-
ings throughout the central districts of England, like
Archenfield to the north of the Forest of Dean, and
the open space between Arden and Wych Wood, which
facilitated incursions from one district to another.'
Although the physical features of the country and the
want of unity among the British tribes may have
offered an insuperable obstacle to any national system
of British highways such as that sketched out by
Col. Cooper King, it is necessary to remember that a
process of consolidation of the petty States had already
begun at the time of Claudius's invasion. The dis-
covery of coins of Cunobelinus—the Cymbeline of
Shakespeare and the father of Caractacus, whose capital
was near Camalodunum, and whose death immediately
preceded Claudius's invasion—throughout Herts, Essex,
Cambridgeshire, Hants, Northants, Bedfordshire, Buck-
inghamshire, Oxfordshire, Berkshire, and Kent, is pro-
bably indicative of this fact ; and all the information
we possess tends to show that Celtic civilization in
Britain was progressive, and had attained the highest
level it was to be permitted to reach at the time when
it was replaced by the civilization of Rome.

Considering all the information at our disposal, it
appears, therefore, that there are good grounds for
concluding that at the time of the Roman invasion

various well-defined trade routes were in existence in
the southern and south-eastern portions of Britain
which connected the ports with the principal settle-
ments in the interior, but that their imperfect con-
struction and frequently devious course led to their
supersession by Roman roads, which had a more direct
alignment and were of superior construction.   The
disappearance of the British trackways, or the impos-
sibility of identifying them, is not surprising when we
consider to what an extent even the far superior roads
of Roman origin that succeeded them are now lost to
us.   When once a road has fallen into disuse its
obliteration by agricultural operations has been, in
many periods of our national history, almost a necessary
consequence, and this tendency has been most marked
at those periods when the profits of agriculture have
been large enough to induce the cultivation of all
available land, as, for instance, at the end of the
eighteenth and the beginning of the nineteenth century.
Thus we frequently now find that stretches of the most
important Roman roads have disappeared where they
have traversed good corn-growing land, and can only
be traced when they traverse woodland and compara-
tively poor agricultural land.   Sometimes communica-
tion between two centres once connected by a direct
road has temporarily ceased, and when reopened a
more circuitous route has been followed.   In such cases
we may find the older road still in use for local traffic
in the neighbourhood of the towns, while the interven-
ing portion of it will have practically disappeared.   Of
this the Roman road between Bath and Cirencester
affords a good example.

And if such a fate has overtaken the deeply-metalled

Roman roads, how much more must similar causes have tended to the disappearance of the pre-Roman tracks. Generally unmetalled, they would naturally follow the ridge-lines of uplands and downs in order to insure firm ground in all seasons; and it is in such localities that we must look for what are undoubtedly the oldest tracks in Britain. Such a one still exists in the ' Ridge Way ' on the northern edge of the Berkshire Downs; here the traveller may follow an ancient track, little used and running through an almost deserted down country, which is known to the antiquarian as a portion of the Icknield Way. Towards the east it is obliterated and lost where it sinks into the Valley of the Thames; but on these exposed downs and on the enduring chalk it promises to remain an almost everlasting relic of former ages. Turning westward, it unmistakably guides the traveller to the ancient temple at Avebury, and he may recall to himself that he is probably following a British prototype of the pilgrim ways that in the Middle Ages were to lead to such religious centres as Glastonbury and Canterbury. Such trackways are sometimes found intersecting Roman roads, and the connection between the two classes of highways traversing the Cotswolds, which has been described in some interesting papers read by Mr. Sawyer before the Cotswold Field Club* and the Bristol and Gloucestershire Archæological Society,† may be seen from the map which is, by his kind permission, here reproduced. May we venture to hope that other archæologists may be found to follow Mr. Sawyer's example ?

* *Proceedings*, vol. xii., p. 65 *et seq.* ; p. 125 *et seq.*
† *Transactions*, vol. xx., pp. 247-254.
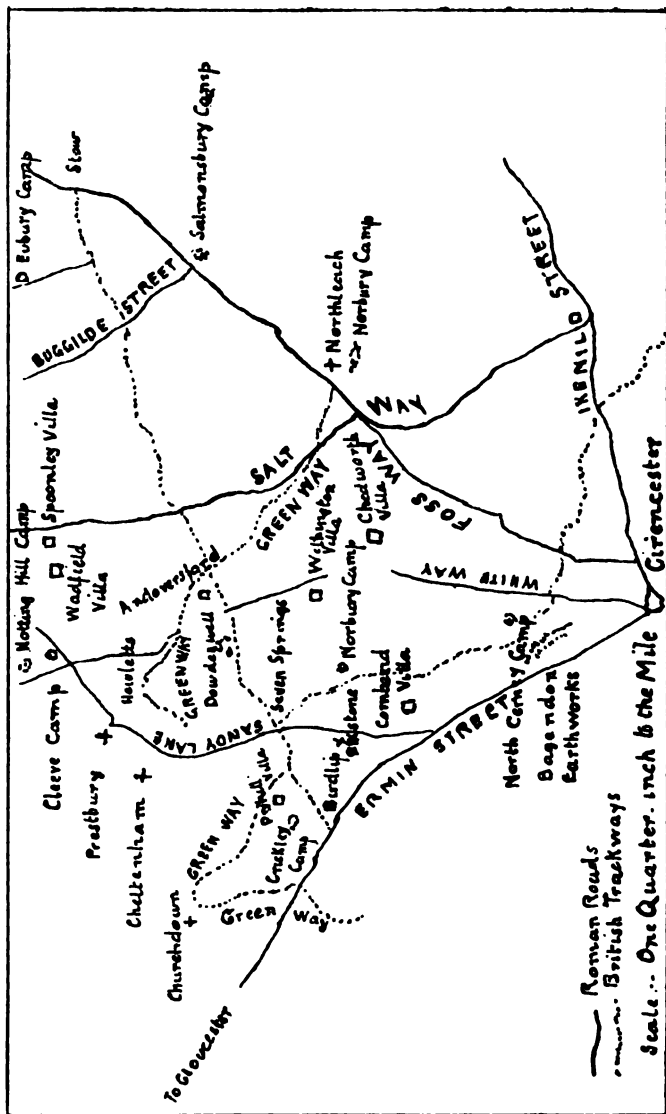
MAP SHOWING CONNECTION BETWEEN BRITISH TRACKWAYS AND ROMAN ROADS IN THE MIDDLE COTTSWOLDS.

CHAPTER IV

THE ROMAN GARRISON IN BRITAIN

Britain primarily a military dependency of Rome—The Roman
soldier the great road-maker—Consequent importance of
considering the size and composition of the Roman army in
Britain—Outline of Roman military organization—Historical
summary of military events in Roman Britain—The progress
of the Roman arms accompanied by the extension of Roman
roads—An attempt to date the construction of some of the
military roads—Internal communications decay together with
the Roman power—Collapse of the Roman power in Britain
—General remarks on Roman military policy.

THE British province was, as has already been stated,
during the greater part of its occupation chiefly a
military dependency of the Empire—a Roman Algiers,
as Green styles it—and in no respect was this fact more
emphasized than in the history of its road system, which
was designed primarily to meet military requirements.

The labour that was required for the construction of
the Roman roads was in a great part supplied by the
troops themselves. The Romans were accustomed to
employ their legionaries whenever circumstances per-
mitted, not only in the making of fortifications and
entrenchments, but in permanent works of general
utility, amongst which roadmaking was not the least

important; and it may be assumed that a large part of the Roman road system in Britain, especially that portion of it which connected the military stations, was constructed by the legionaries. It is impossible to speak with accurate knowledge of the actual numbers of the garrison at any particular date, for the various units must frequently have been considerably below their full strength; but it is known, however, with some certainty of what units the garrison consisted throughout the entire period of the Roman occupation, and, as a general principle, it is safe to assume that those units were never above, and more probably considerably below, their 'paper strength'—a term which may sound strange in connection with Roman history, but which is justified by the fact that, as will be seen later, the Romans had an army list, the 'Notitia Imperii,' which recorded the stations of all their troops throughout the Empire. It may be well, therefore, to give a summary of the Roman military organization, in order to enable us to estimate the establishment of the various units.

The Roman military system was based on the division of the army into legions, and contained many features that find interesting parallels in modern armies. These legions had distinctive titles of honour conferred on them in addition to the numerals that denoted them, the titles of honour indicating, perhaps, a special connection with some Emperor, or some particular action in which the legion had distinguished itself; and we also find legions bearing distinctive badges. For instance, among the legions longest stationed in Britain were the IInd (Augusta) and the XXth (Valeria

Victrix), whose badges were respectively a pegasus and
capricorn, and a wild boar.   Again, the Roman organ-
ization included a staff of medical officers for each
legion ; and cohorts of marines, and fire brigades with
a semi-military organization, are examples of the
interesting parallels which might be traced between
Roman and modern times.   Returning however to
the legion, we find that it was originally recruited
from Roman citizens alone, and consisted of ten cohorts;
the first cohort, which comprised ten *centuriæ*, was from
1,000 to 1,100 strong, while the other cohorts had only
five *centuriæ* each, and were from 500 to 600 strong.
The infantry of the legion would therefore amount to
about 6,000, and at some periods a body of about 400
legionary horse formed part of the legion.   In every
cohort there was a picked body of men, probably
veterans, known as *vexillarii*, who formed a tenth of
the entire strength.   The term *vexillatio*, frequently
found in inscriptions, referred to the entire body of
these men, who were at times detached from the legion,
and who then served together in a body that would be
numerically equivalent to a cohort.   To every legion
was affiliated a force of auxiliaries, not Roman citizens,
which may be computed as approximately consisting of
eight cohorts of infantry and two *alæ* of cavalry, the
ala being about 400 strong, and being divided into
ten *turmæ* or troops — a total of 4,800 infantry and
800 cavalry.   With these particulars in mind, we may
proceed to examine the record of the principal military
events in Britain from the time of Cæsar's first inva-
sion, 55 B.C., to the withdrawal of the last legion in
A.D. 406.

Cæsar's first invasion appears to have been little more than a reconnaissance in force. Some 100 transports were employed to bring over the regulars of the two legions, the VIIth and Xth (probably about 12,000 foot and 800 horse). The whole force was only some three weeks in Britain, and no permanent result was obtained. In the following year a more serious effort was made, and the occupation lasted some four months, though the furthest point reached appears to have been only a short distance north of the Thames. The VIIth Legion, which had been in Britain the previous year, was again included in the army, and with it were four other legions whose names are unrecorded. About 800 transports were used, and the entire number of troops employed may have been about 30,000, including some 2,000 horse, a portion of which is expressly mentioned as consisting of Gaulish auxiliaries. Again only temporary results were obtained, and neither the VIIth nor Xth Legions appear to have served in Britain at any later date, unless, indeed, a vexillation of the VIIth Legion was among the troops which accompanied the Emperor Hadrian to Britain in A.D. 119. On these occasions no permanent road construction can have been carried out by the Romans, but surveys were probably made, and the knowledge acquired of the country was doubtless recorded for later use. Nearly 100 years later, however, in A.D. 43, in the reign of Claudius, who appointed Aulus Plautius the General in command, a very different invasion was made. The legions that now landed in Britain were the IInd (Augusta), IXth (Hispana), XIVth (Gemina), and XXth (Valeria Victrix), two of which, at least, were destined to

remain some 360 years on the island, and, allowing a
full proportion of auxiliaries, this would make the
numbers of the invaders 53,200 infantry and 4,800
cavalry, probably not too large a force under all the
circumstances. It is noticeable that during this cam-
paign German auxiliaries are frequently mentioned as
contributing to the Roman successes in Britain by their
skill in swimming and fording rivers, and we may
assume that a large part of the fighting fell to their
share.

It was not till A.D. 51, eight years from the time of
the Roman landing, that Caractacus was finally crushed,
and the intervening period was not without what are
now described as ' regrettable incidents,' as, for example,
when a prefect and eight centurions were killed in
action with the Silures and two auxiliary cohorts were
cut up by the same tribe. Still, the Roman progress
was continuous, if slow, and by this time Roman
military centres were probably firmly established, the
IInd Legion being stationed at Glevum (Gloucester),
the XXth at Uriconium (Wroxeter), and the XIVth
at Camulodunum (Colchester), and all these places must
have been connected by roads with the quarters of
the IXth Legion, which probably garrisoned the south
and south-east of the island, where serious resistance
was no longer possible.

Ten years later, A.D. 61, the conversion of Camulodu-
num into a self-supporting colony, with a garrison of
veterans, had relieved the XIVth Legion for active
service in the west, and the headquarters of the IInd
Legion had been advanced to Isca Silurum (Caerleon),
while Suetonius, the then Roman commander, had

crossed into Mona (Anglesey), the last British strong-
hold in the western portion of the island. Taking
advantage of his absence, and maddened by local mis-
government and oppression, the Iceni and other tribes
of Eastern Britain broke into a desperate revolt under
the celebrated Boadicea. Two at least of the four
legions in Britain, the XIVth and XXth, were in the
far west with Suetonius, and the rising was so far
successful that the new colony of Camulodunum and
other Roman cities in the east were destroyed, and the
IXth Legion itself was practically annihilated in the
heavy fighting that followed. Suetonius hurried east-
ward with the XIVth and part of the XXth Legions,
but owing to the failure of the commander of the IInd
Legion to obey the order to join him, Suetonius found
himself with probably one-third of the Roman forces in
Britain already swept away, and with only some 10,000
troops available to meet the victorious Britons, who
may have numbered 70,000 or 80,000 fighting men.
The battle that resulted was, however, decisive, and
henceforward the Roman power was never seriously
challenged by the conquered population of Southern
Britain.

It is probable that from about this time may be
dated the construction of many of the buildings and
walled cities, of which traces still exist, and in confirma-
tion of this opinion it may be noticed that while records
of all the legions and of some sixty cohorts and twenty
alæ of auxiliaries which were stationed at various
times in the island are found among the Roman
inscriptions in Britain, the XIVth Legion is only re-
corded in two existing inscriptions, both monumental,

at Lincoln and Wroxeter; and as, despite its twenty-
seven years' stay in Britain, it has left so few memorial
records, it is probable that during most of this period
the country was too unsettled to allow of the legion-
aries being employed in anything but military duties
and in such work as the construction of camps and
military roads.   In A.D. 68 this legion was recalled to
the Continent by the Emperor Nero; but Vitellius, in
his struggle with Vespasian in the following year,
ordered it back, and the *vexillarii* of the legions in
Britain were apparently sent out of the island in its
place.   Vespasian, who had formerly, under Aulus
Plautius, commanded the IInd Legion in Britain with
distinction, was supported by this legion; but the bulk
of the troops in Britain were in favour of Vitellius, and
considerable dissension must have existed between the
different commanders.   On Vespasian's final success he
therefore gave the command of the XXth Legion to
Agricola, a trusted adherent of his own, who had pre-
viously commanded it in Britain under Suetonius, and
in A.D. 70 he finally withdrew the XIVth Legion from
the island.   This legion, which had mainly contributed
to Boadicea's defeat, was relieved at Lincoln by the
IXth Legion, the depleted ranks of which had been
filled by large drafts of Germans sent over in A.D. 62,
and henceforward it is doubtful if there were ever more
than three legions permanently stationed in Britain at
one time.

   The next five years saw the extension of the military
road system from Deva (Chester) and Lindum (Lin-
coln), to Eboracum (York), the future capital of Roman
Britain; and in A.D. 78 Agricola, who had received

supreme command in Britain, began a period of continuous warfare which forms one of the most brilliant episodes of the Roman occupation.*

After four years of continuous success, during which Mona was for the second time in its history occupied by the Romans, and the military road system was extended from York to the most northerly Roman outposts, A.D. 82 found the Roman legions in Caledonia, where the unfortunate IXth Legion was surprised and its camp nearly taken. During this invasion of Scotland a recently arrived German cohort murdered its officers, seized some ships, and made sail for their native land; but ill luck pursued the mutineers, who fell into the hands of the Frisii and other piratical tribes, and eventually some unhappy survivors were brought into a Roman port, and there offered for sale as slaves. In A.D. 83 a great battle took place in the Grampians, where some 30,000 of the natives were routed by Agricola, the bulk of the fighting falling on the 8,000 auxiliaries and 3,000 horse under his command, while his fleet reached the northern coast of Scotland,

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* It may be noted here that, according to Hübner, another legion (II. Adjutrix Pia Fidelis), quite distinct from the IInd Augusta, replaced the XIVth after an interval, and remained in the island probably until A.D. 85. If so, this legion must have been employed in garrison duty during the wars of Agricola, but the question appears uncertain. The arrival of a commander of the first rank, as in the case of the Emperor Hadrian, and later, in that of Theodosius, naturally coincided with the arrival of large reinforcements; but in the present case it seems more probable that Agricola was merely accompanied by a personal escort than that an entire legion was transferred to Britain.

and it was definitely ascertained that Britain was an island; but in the following year he was recalled by the Emperor Domitian, who had succeeded Vespasian, and who may have considered him too 'expensive' as well as too successful a General.

There is now a gap of some thirty-five years in the history of Roman Britain, during which time we may assume that the improvement of the Roman road system went on without interruption. Hadrian, who had become Emperor in A.D. 117, came to Britain two years later, bringing with him as a reinforcement the VIth (Victrix) Legion,* which was quartered at Eboracum (York), and in which the IXth Legion, which had suffered so severely in earlier periods, and which at this time was also stationed there, was probably absorbed, for from this time it entirely disappears. The permanent station of the XXth Legion continued to be Deva (Chester), and that of the IInd Legion Isca Silurum (Caerleon), until shortly before the final withdrawal from Britain of the Roman forces in A.D. 406, when the headquarters of the latter were at Rutupiæ (Richborough). No great scheme of conquest was initiated by Hadrian, who may have realized the limitations of the Roman power more correctly than had been done by Agricola. His policy manifested itself in the improvement of the roads and the construction of bridges, and though he probably remained in Britain for only one year, it was under his instructions that some part at least of the great work we know as Hadrian's Wall was built. The IInd and VIth

* Possibly it was accompanied by vexillations of the VIIth, VIIIth, and XXIInd Legions.

Legions shared the labour of its construction,* and some twenty years later, about A.D. 139, when Antoninus Pius was Emperor and Lollius Urbicus proprætor in Britain, the IInd Legion and vexillations of the VIth and XXth Legions were also employed in building the wall between the Firths of Forth and Clyde, designed to protect the Roman settlements north of Hadrian's Wall. When Antoninus Pius was succeeded by Marcus Aurelius in A.D. 161 it was apparently already found impossible to hold this northern line of defence; and shortly after the accession of his son Commodus, in A.D. 180, even Hadrian's Wall was pierced by the Caledonians, who overran a great part of Britain, though Ulpius Marcellus, the Roman proprætor in Britain, succeeded in A.D. 184 in clearing the country of them, and again occupied this great defensive work.

A.D. 193 witnessed the beginning of a contest between three rival claimants for the Empire, resulting in the triumph of Severus, who, after crushing his Eastern rival, Pescennius Niger, in Syria, overwhelmed Clodius Albinus, the selected leader of the legions in Gaul and Britain, near Lyons, and the losses to the British troops in this internecine warfare must have largely contributed to weaken the Roman power in its British province. In recent years a jar containing some 250

* Its permanent garrison, consisting of auxiliaries drawn from almost every nationality in the Roman Empire, had an estimated strength of from 10,000 to 15,000 men, and behind it, at Eboracum, lay the VIth Legion (which in earlier days, at least, was chiefly composed of Italians), in readiness to move up to its support when emergency arose. It is interesting to note the mention about this time of a marine cohort (*cohors ælia classica*) as stationed at a Northumbrian seaport.

silver coins has been disinterred at Silchester, the dates of which make it probable that the hoard may have belonged to some unhappy adherent of Albinus, who before leaving for the Continent buried his surplus funds in a crock, his equivalent for lodging it in a bank, and was prevented by the fortune of war from ever returning to recover his deposit. The victorious Severus was obliged by the unsatisfactory position of affairs to come to Britain in person in A.D. 207, and, after conducting a successful but costly campaign in Caledonia, died at York in A.D. 211, worn out by age and domestic troubles. From the time of his death Roman Britain enjoyed freedom from the incursions of barbarians for nearly 150 years, and it was during this period that life for the governing class must have been most luxurious, and progress must have attained, superficially, the highest point.

During the reign of Diocletian, in A.D. 284, an important episode demands notice. The success of Carausius, the Roman Admiral in the Channel, in his operations against the piratical tribes that infested these seas aroused the suspicion of the Emperor, and being of native extraction, he was welcomed by the troops in Northern Gaul and Britain, and made himself independent of the central power. This Roman exponent of Home Rule, who seems to have been of exceptional ability, stopped the drain of corn and men from Britain to the Continent—one of the chief causes of the impoverishment of the island—coined his own money, and might have consolidated a strong and independent kingdom had he not been assassinated by Alectus, a trusted subordinate, in A.D. 294. Three

years later a Roman force crossed over to Britain,
having evaded the British fleet under cover of a fog,
and after a battle fought somewhere between London
and the coast west of the Isle of Wight, in which
Alectus himself was killed, the island once more fell
under the dominion of Rome.   Constantius Chlorus,
who had directed these operations, received the supreme
command in Britain as his immediate reward, and,
returning as Emperor to the island in A.D. 305, died at
Eboracum (York) the year following, and was suc-
ceeded by his son Constantine the Great, under whom
Roman Britain was reorganized for administrative pur-
poses and united to Gaul to form one of the provinces
of the Empire.

Under successive Emperors Britain still remained
comparatively undisturbed until A.D. 360, when in-
vasions by the northern tribes of Caledonia and by
sea rovers on the ' Saxon shore '—the name given to
the coast from the Wash to the Isle of Wight—again
reduced the island to extreme distress.

In A.D. 369 Theodosius the Elder, a Roman General
with a great reputation and the father of the later
Emperor of the same name, was sent over with a con-
siderable force to restore order; but, though he suc-
ceeded in clearing the country south of Hadrian's Wall
of the invaders, it is doubtful if the northern province
of Valentia was held permanently after this period.
Maximus, who had served in Britain under Theodosius,
considering his merits insufficiently rewarded by the
British command, proclaimed himself Emperor at York
in A.D. 383, and, having collected all the troops that
could be spared, crossed into Gaul and after several

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campaigns was in A.D. 388 finally overwhelmed in Italy by the army of his rival. The headquarters of the XXth Legion may have left the island at this time, or may have perhaps been withdrawn by order of Stilicho, the Minister and General of the Emperor Honorius, about A.D. 402-403 ; but it is certain that only the IInd and VIth Legions were in Britain at the time of the compilation of the 'Notitia Imperii,' which is believed to record the stations of the Roman troops at about the end of the fourth or the beginning of the fifth century, and shows their forces in Britain as mainly concentrated on Hadrian's Wall and on the Saxon shore.

The closing scene of the Roman dominion in these islands shows the local military chiefs contending for the shadowy remnants of power associated with its government. Britain, which had been the training-ground of future Emperors—of Vespasian and Titus, of Maximinus and Pertinax—and whose administration had been of sufficient importance to require the presence of the Emperors Claudius, Hadrian, Severus, and his sons, Constantius Chlorus, Constantine, and Constans, was now administered by soldiers of unimportant rank and little ability. As regards its internal communications, the whole country must have suffered severely between A.D. 360-368 ; and though Theodosius in A.D. 369 is said to have begun rebuilding the destroyed cities and forts, there is no evidence to indicate the repair of the old roads, and it is certainly unlikely that any new road construction was undertaken. The last claimant for supreme authority in Britain was an unimportant soldier, bearing the great

name of Constantine, who, following the fatal example of Maximus, is believed to have embarked the last remnants of the Roman forces at Rutupiæ about A.D. 406, and led them into Gaul. With him must have gone the headquarters of the IInd and VIth Legions, the last representatives of the great army that had followed Claudius into Britain when he began his career of conquest. A curious proof of the comparative weakness of the garrison towards the end of the Roman occupation is found in the fortified posts on the northern wall, where at some time posterior to their construction gateways are found to have been either walled up altogether or to have been much reduced in dimensions—an indication of the reduced numbers of the defenders.   Villas and buildings have also been found in various parts of the island, which appear to have been partially burnt and then repaired previously to their final destruction, the rebuilding having probably taken place after one of those periods of savage incursions by the barbarians and of general insecurity which occurred about A.D. 180-184, and again about A.D. 360-368.   After the departure of the last legions from Britain, Honorius, the Roman Emperor, unable to protect the Roman cities in the island, formally gave them their freedom in A.D. 410, and urged them to defend themselves.   No Roman coins are found in Britain later in date than those of Valentinian III., who reigned A.D. 425-455, and no inscriptions so recent as this have been discovered.   A final and useless appeal to Rome for aid was made by the abandoned cities of Britain in A.D. 446, and from this time we may conclude that all communication with Rome ceased.

Some general observations on Roman military policy
are perhaps desirable before this chapter is concluded.
The policy of holding a conquered country with troops
drawn from other portions of the Empire, while the
native fighting population was embodied in auxiliary
cohorts and sent to serve at a distance, was nowhere
more fully carried out than in the case of Britain.   As
early as A.D. 55 we find British auxiliary cohorts men-
tioned as serving on the Continent, and native levies
were continuously sent to serve abroad even up to the
time of the elder Theodosius, when we find the par-
tially conquered tribes of Northern Britain enrolled in
a wholesale way in the Roman army and sent out of the
island ; and, on the other hand, it would be difficult to
find any part of the Empire that was not represented
among the foreign auxiliaries, who at various times were
included in the Roman garrison in Britain.   The
stations of these auxiliaries appear to have been so
arranged that contiguous parts were always occupied by
troops of different nationalities, thus rendering mutinous
combinations more difficult, and this is especially notice-
able on Hadrian's Wall, where the evidence of the
' Notitia ' is confirmed by local inscriptions, and where,
if the date usually attributed to the ' Notitia ' is correct,
the same corps must in some cases have done garrison
duty for over 200 years—a curious circumstance when
the constant fighting on the Wall and the occasional
successful irruptions of barbarians is considered.

The legions themselves were considered too valuable
for such work, and even in pitched battles were as much
as possible held in reserve.   Their long stay in Britain
must, however, have resulted in their being recruited to

a greater or less extent from native sources, and inter-marriages between the legionaries and women of the country must have resulted in a mixed population that was doubtless largely represented in the legions.   A time came when the withdrawal of the native fighting strength for Continental warfare was not counterbalanced by the arrival of fresh levies from abroad, and it is probable that the troops that finally abandoned Britain about A.D. 406 were as inferior in discipline and military spirit as in numbers to the veterans that first crushed the British tribes and spread Roman laws and Roman civilization throughout the island.
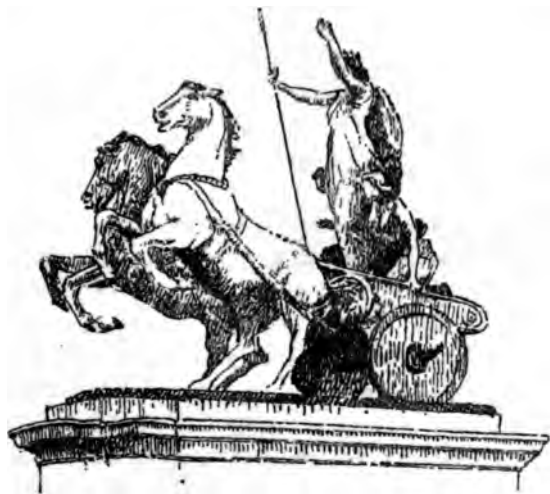
BOADICEA, QUEEN OF THE ICENI, WHO DIED A.D. 61, DEFENDING HER COUNTRY AGAINST THE ROMAN INVADER.

CHAPTER V

THE EVOLUTION OF OUR ROMAN HIGHWAYS

The Roman period in British history—Its duration—A universal
road system throughout the Roman Empire—Roman roads
originated (1) from military requirements, (2) from reasons
of civil administration, and (3) from commercial necessities—
Consideration of historical events—The course of road con-
struction and the extension of the system—Every Roman
city and colony a centre of road-making activity—Trade
routes in use by the Romans immediately after their conquest
of Britain—Rapid growth of towns in Roman Britain—
Certain periods conspicuous for road-making activity in
different parts of the island.

THE Roman occupation of Britain usually receives such
a cursory notice in general histories that we are apt to
form a very inadequate notion of its results. During
the century that intervened between the conquests of
Cæsar and Claudius the effects of the Roman influence
over Britain were indeed comparatively slight, though
by no means unworthy of notice. If we set this period
aside, however, we find that the time which elapsed
between the final reduction of Britain in A.D. 84 and
the departure of the legions in A.D. 406 is more than
treble the length of the existence of the United States
of America as an independent nation, and almost treble
the length of the existence of our Indian Empire. There

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are certain facts and epochs in connection with this lengthy period which require to be specially noticed with regard to highways. The establishment of Roman sway over the island resulted in the establishment of Roman civilization, and it follows from this ' Romanization ' of the original inhabitants that we must expect to find highways constructed on Roman principles and maintained by Roman laws, and the same modes of travelling prevalent as existed in the great centre of the Empire itself. Mr. Wright, commenting on Roman remains in Britain, remarks that ' they uniformly give evidence to the fact that the civilization of Britain during the whole of this period was partly Roman, and that whatever races settled here under the banners of Rome they accepted unreservedly its dress and manners as well as its language and laws.'* So, too, Kemble, after discussing the rise and nature of British cities, observes : ' Whatever the origin of these towns may have been, it is easy to show that many of them comprised a Roman population ; the very walls by which some of them are still surrounded offer conclusive evidence of this, while in the neighbourhood of others coins and inscriptions, the ruins of theatres, villas, baths, and other public or private buildings, attest either the skill and luxury of the conquerors or the aptness to imitate of the conquered.'†

The Roman roads in Britain originated from three distinct causes. The construction of the most important of the highways, the great military roads, was directly due to the campaigns of the Roman Generals.

* ' The Celt, the Roman, and the Saxon,' p. 301.
† ' The Saxons in England,' vol. ii., p. 270.

The maintenance of these highways was necessary for
the preservation of Roman authority over the country,
and the towns on their route in most cases arose out of
military camps. ' The soldiers,' says Mr. Elton, ' were
pioneers and colonists. A Roman camp was a city in
arms, and most of the British towns arose out of the
stationary quarters of the soldiery. The ramparts and
pathways developed into walls and streets, the square of
the tribunal into the market-place, and every gateway
was the beginning of a suburb where straggling rows
of shops, temples, rose-gardens, and cemeteries were
sheltered from all danger by the presence of a permanent
garrison.'[*]

The second cause of Roman road-making in Britain
is found in the methods of Roman civilization and civil
administration. The colonial cities (*civitates*), which
were centres from which Roman civilization was dis-
seminated through the conquered country, and also the
fortresses (*castella*), which were erected to guard the
sea - coasts and the ever-advancing inland frontiers,
had always assigned to them large tracts of the adjoin-
ing country, with accompanying privileges and obliga-
tions. These lands were termed *territoria*, and were
intersected by systems of roads which served the two-
fold object of establishing communications connecting
the cities and ports with all parts of the territories
attached to them and also with the adjacent military
roads, and, at the same time, of furnishing boundaries
marking out the individual estates (*centuriæ*) assigned
to the settlers of the colonies and to the military
tenants of the territoria of the *castella*, who held by

* ' Origins of English History,' p. 322.

service of watch and ward in their towers. These roads, ways, and lanes were termed generally *limites*, and the soil over which they were laid was either taken from the land of the adjoining allotted estates or from that of the territory, without trenching on any allotment. This point, and also the width of the roads, was determined by the *lex colonica*, which assigned to the colony its territory, defining it *en bloc*, specifying its dimensions and confines, and providing for all details, great and small, respecting its organization and government. It was the fundamental law of the settlement which furnished the instructions to the commissioners appointed to establish the colony, and was the chief authority, governing all questions arising as to its internal management after its formation.

Without such a *lex colonica*—which in the times of the Republic was passed by the Senate and people, and in later periods by the Emperor alone — no colony could be established. According to the theory of the Roman law, the land of a conquered country became the absolute property of the Roman people, and if not retained by the Government as public property, to be used in support and relief of the finances, could be granted by an act of the Legislature to private individuals, who, of course, were either a portion of that people or their favoured allies. It was said by Seneca that 'wheresoever the Roman conquers he inhabits'—a statement the truth of which is evidenced by the numerous colonies which were everywhere established in the most fertile districts of the Empire, and more especially in its western portions.

The two causes of road-making which we have

hitherto noticed are conquests and colonization; to the first is due the military roads, and to the second is due the roads described as *limites*. There remains yet a third cause—the growth of commerce.

Certain roads somewhat less perfect in their structure than the *viæ militares*, or *limites maximi*, have been discovered which appear to have been made entirely for commercial purposes. As has been mentioned in a former chapter, it is maintained by some authorities that these routes were the trade routes of Britons before the Roman Conquest; but even if this were so, it cannot be doubted that, as in similar cases in Asia Minor, the Romans reconstructed and improved such of them as they adopted, and made numerous others of the same class. A road of this kind is known to have run from Old Sarum (Sorbiodunum), through the mineral districts of the Mendips, to Brean Down in Somersetshire. Another, a branch of which joined the above road, connected Lepe on the coast of Hants, opposite the Isle of Wight, with Southampton and Winchester; and similar roads ran from the iron-mines of Gloucestershire and Northamptonshire and from the salt districts of Droitwich and Cheshire, either to commercial centres or to junctions with the main highways. Having regard to the numerous products and manufactures of Britain, we may conclude that these commercial roads extended over a large part of the kingdom, and that they must first have been begun in the districts of the South and West, which were the earliest reduced under the Roman rule, and have been gradually developed in other localities as that rule became more widely diffused.

Whatever may have been the immediate cause of the construction of the Roman highways in Britain, it must necessarily have been extended over a long period, and, like the introduction of Roman civilization, can only have been gradually accomplished. It would be manifestly impossible at this remote period of time, and with the imperfect sources of information at our command, to attempt to trace in detail the different stages of road construction through four centuries. A consideration of the transactions of certain Emperors and their representatives may perhaps, however, help us to gather some general notion with regard to its progress.

The reduction of Britain under the Roman dominion occupied forty-one years—from the landing of Aulus Plautius, the General of the Emperor Claudius, in A.D. 43, to the recall of Agricola by Domitian in A.D. 84. During the first thirty-five years of this period road-making must have been confined chiefly to the southern, eastern, and midland portions of the island. The three roads running from Lympne, Dover, and Richborough on the Kentish coast to a junction at Canterbury appear to have been undoubtedly the first constructed by the Romans in Britain. Others will have followed when the capture of Caractacus, about A.D. 50, opened out all the south-west portion of Britain to the Roman invaders. With the appointment of Agricola, however, to the chief command in Britain by Vespasian in A.D. 78, road-making received a new impetus, and the chain of forts which he erected between the Firths of Forth and Clyde became the terminus of Roman military ways. It is to Agricola

that the commencement of most of these roads in
Scotland must be attributed ; and it may be assumed
that the system of military roads in Britain was already
completed before he began his Caledonian campaigns.
What stage of completion the other two classes of
Roman roads in Britain had reached at this time is
not easy to ascertain.   Each of the cities which at
various times formed the headquarters of the different
legions must have been a centre of the first importance
and the nucleus of a colonial territory.   Of these the
first formed were probably Colchester (Camulodunum)
and Gloucester (Glevum), which mark the subjugation
and settlement of the South and West of England ;
and it is to be presumed that the colonies of Lincoln
(Lindum) and of Chester (Deva), which served in a
similar way to secure the districts subdued by the
Romans in the Midlands, had also both been estab-
lished before the final conquest of Norman Britain by
Agricola.   It is probable also that York, which was
for so long to be the headquarters of the VIth Legion
and the Roman official capital of Britain, was already
the centre of a colonial territory, and that munici-
palities had been established at Richborough, London,
Bath, Caerleon, Cambridge, Silchester, Lancaster, and
elsewhere in Herts, Surrey, Bedfordshire, Berkshire,
and other English counties.

Possibly many of these cities, especially those which
are not mentioned in the Itineraries of Antoninus, never
held important Roman garrisons, but were nevertheless
centres of road-making activity in the territories allotted
to them.   As regards the numerous *castella* erected by
the Romans in Britain, and which, like the colonies,

contributed to the formation of *limites*, some of those on the South Coast were probably the first erected after the invasion under Aulus Plautius (A.D. 48-50), and were designed to keep open communication with the Continent. Cirencester (Corinium), which eventually became a large city, of which the walls were two miles in circumference, appears originally to have been one of the *castella* in the interior of the island, and to date from this period. On the other hand, the majority of the *castella* on the Saxon shore were erected to repel piratical invasion, and do not seem to have been built till about A.D. 289, or more than two centuries later than the time of Agricola. It is evident, therefore, that the process of founding colonies and building *castella* and the construction of the *viæ limites*, for which they were responsible, extended over a wide period of the Roman occupation, and that in some districts these territorial roads were constructed prior to, or at the same time as, the great military roads, and in other districts at subsequent dates.

As regards the commercial or trade routes, we know that the Romans commenced to work the mines and to obtain all possible direct returns from products of value in the island immediately on its occupation ; and it is therefore reasonable to suppose that these trade routes were established by them at the earliest practicable date, and that they were gradually improved as the traffic increased and the necessary labour became available. The condition of Roman Britain about the end of the first century may therefore be summarised by saying that a great system of military roads had been established, that numerous cities and towns had sprung up

on their course, and that Roman civilization was now exercising an ever-increasing sway over its inhabitants, while a stream of foreign population was flowing steadily into the island. Ptolemy, who lived during the reigns of Hadrian and Antoninus Pius, and apparently wrote about A.D. 120, gives a list of fifty-six of the most important British cities in his day, twenty of which were in Scotland, and it is to be presumed that these must have been in existence for some time when his work was composed. The most northerly town mentioned is Burghead (Ptoroton), on the Moray Firth, and in some degree the mention of these towns serves to show how rapidly the system of roads begun by the Roman legions in A.D. 43 must have developed in the ensuing threescore years.

In the second century a further impulse was given to the extension of this system by the construction within about twenty years of each other of two great lines of defence against the incursions of tribes of the North, the first and southern Wall being constructed by order of the Emperor Hadrian, and the more northerly Wall by Lollius Urbicus, the propraetor of Antoninus Pius, who named it after his imperial master, who, though he does not appear to have visited Britain himself, con-ferred an immense benefit upon the island by extending to it, as to the rest of the Empire, the valuable right of Roman citizenship. It is to this circumstance that the existence of the only three Municipia in Scotland—Burghead (Ptoroton), Comrie (Victoria), and Dumbarton (Theodosia)—has been attributed. These towns all lay beyond the Wall, and probably had the right of self-government conferred on them for the purpose of

inducing the native inhabitants to occupy the outlying districts of the country in which Lollius Urbicus had made good roads and established military stations.

This proprætor appears to have been a worthy successor of Agricola, and to have erected many of the camps attributed to the latter, when, after the completion of the Wall of Antoninus Pius, he advanced northward as far as Burghead (Ptoroton), and it is probable that the Roman power attained its greatest extent under his administration. The districts north of the Wall, however, seem to have enjoyed this state of prosperity for but a brief space, since they were abandoned by the lieutenants of Marcus Aurelius about A.D. 170, and were apparently never permanently reoccupied. From this date, therefore, Roman Scotland must be considered for all practical purposes to have been comprised between the Walls of Hadrian and Antoninus Pius, and the term 'Caledonia' was henceforth applied only to the country lying beyond the barrier of Antoninus, and the name of Britons only to the tribes who inhabited it.

To the Emperor Severus has sometimes been ascribed the credit of having been as great a constructor of Roman roads in Britain as Agricola had been in the preceding century. It is certain that this Emperor, in order to repress a rising of the Caledonian tribes, led an army into Scotland in A.D. 209, and penetrated to the extreme northern coasts after suffering great hardships. During his progress we learn that he cut down forests, and in some places filled up marshes, for the purpose of making his military roads, which, when necessary, were, after the Roman manner, carried directly over moun-

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tains.   The records of Severus's proceedings in Britain seem, however, to lead to the conclusion that he could have had but few opportunities for constructing permanent roads save in those portions of Scotland into which Agricola and Lollius Urbicus had not attempted to penetrate.   He appears to have died in York in A.D. 211, probably two years after his return from Scotland; and though he may have repaired the Wall of Hadrian, he can have had little leisure for road-making in the southern half of the island.

Moreover, as has already been said, it is reasonable to suppose that the road system in Roman Britain must have been practically completed at a much earlier period.   Mr. Wright, in 'The Celt, the Roman, and the Saxon,'* tells us that at this time 'the Roman province of Britain had been extremely populous and rich.   Multitudes of auxiliary troops had been gradually transplanted into it, and had no doubt taken with them or been followed by colonies of their countrymen. Merchants, tradesmen, artisans, and probably even artists and men of letters, had sought their fortune where the increase of commerce and civilization had opened a field for their exertions.   The strength of the native Britons had been drawn off to serve in foreign countries, and that part of the original population that remained at home had probably been greatly diminished in numbers and reduced to the condition of serfs.' We may fairly assume, therefore, that the condition of the country and the short duration of Severus's stay in Britain both render it extremely improbable that he was

* P. 129.

as great a maker of roads as some authorities have imagined.

During the period which intervened between the death of Severus and the grant of their freedom to the British cities by Honorius in A.D. 410, which may be considered the virtual termination of the Roman dominion in Britain and the date from which the decay of the great Roman road system commenced, only one subject demands a passing notice in the present chapter. This is the division of Britain in the reign of Constantine into the five provinces of Britannia Prima, Britannia Secunda, Flavia Cæsariensis, Maxima Cæsariensis, and Valentia, and its conversion from a province of the Empire into a portion of a proconsulate that extended from Mount Atlas to the wilds of Caledonia under the government of a prefect in Gaul with a vicar or deputy at York. Constantine appears to have remained in the island six years after his proclamation as Emperor by the army at York, and may probably have repaired and improved the British road system, though we have no evidence on this point beyond the discovery of four *milliaries* or milestones, the inscriptions on which shows them to have been erected in his reign.

There seems no doubt that a vast network of roads now traversed the island, passing through a well-cultivated and fairly populous country, and connecting a large number of flourishing cities. In a later chapter it is proposed to consider how these great highways were constructed and maintained.

CHAPTER VI

ROAD SURVEYING AND ROAD MAINTENANCE

Classification of Roman roads into *public* and *private—Colonial*
roads intersecting territories of colonial cities and of frontier
fortresses not mentioned by legal writers—The centuriation
of colonial territories—Centurial stones and landmarks indi-
cating boundaries of colonies—Examples of centurial stones
—Colonial distinguished from military roads in writings of
Roman land-surveyors—The greater colonial roads were
public and the lesser private roads—Public roads maintained
by the State—Each great road controlled by an inspector-in-
chief—This office (*curator viarum*) often undertaken by the
Emperors—Private individuals frequently contributed large
sums towards road maintenance—Evidences of the national
character of the work—Excellence of construction and extent
of road system due to this fact—Maintenance of the lesser
country roads vested in the rural authorities.

It was pointed out in a previous chapter that the Roman
roads in Britain originated from three distinct causes—
military purposes, the requirements of civil administra-
tion, and the demands of commerce—but every road,
whatever may have been the cause of its construction,
was placed under the Roman law in one of two main
divisions.

The first of these comprised all public roads (*viæ
publicæ*), the use of which was free, and the soil of
which was the property of the State. The other

included all private roads (*viæ privatæ*)—sometimes also apparently denominated *viæ agrariæ*—the soil of which was private property, though the right of passage over them seems to have been common to all. These two great divisions, again, comprehended four varieties of road. The *first* were public roads, or ' King's highways,' which were known by the terms *militares* (military), *consulares* (consular), or *prætoriæ* (pretorian) roads, all of which were *viæ publicæ*. The *second* were cross-roads (*viæ vicinales*), some of which connected the great lines of military way, while others led only to unimportant places, and these were sometimes *viæ privatæ* and sometimes *viæ publicæ*, according as the ownership of the soil was vested in individuals or in the State. The *third* were *viæ agrariæ*, which, broadly speaking, may be styled ' country roads,' though the term in its literal signification appears to mean a road passing through a field or estate, and to have been also used, as has been said above, as synonymous with *viæ privatæ*. The *fourth* were *deviæ* or by-roads, which, like the country roads (*agrariæ*), would seem, from their nature, to have been always *viæ privatæ*.

It will be observed that no mention is made in the above definitions of the *limites* or roads which have been described in the last chapter as intersecting the territories assigned to colonial cities (*civitates*) and to the fortresses (*castella*) that guarded the frontiers of the Empire. These roads served as boundaries to mark out the different estates (*centuriæ*) into which these territories were divided,* and were of two classes, the difference between which can only be made

* See *ante*, p. 58.

clear to the reader by a brief consideration of the mode in which the Roman land surveyors parcelled out the lands of a newly-created colony or of a *castellum* into *centuriæ*—a process termed *centuriation*—the legal and constitutional act which perfected the change from public land into private property. In addition to the natural boundaries of mountains, rivers, and water-courses, a territory was defined by the artificial land-marks of roads, stone altars, and termini of a peculiar and more important character than those of the private estates composing it, while the villages or lesser divisions (*pagi*) of the territory were also marked out by special signs and termini.

When the *lex colonica* for the establishment of a colony had been passed, the commissioners appointed for the purpose proceeded to the territory—the boundaries of which had already been defined by the *lex colonica* itself—with a staff consisting of a military detachment, augurs, architects, and land surveyors. The latter, who were termed *agrimensores*, and whose periodical surveys kept the Roman Government constantly supplied with complete information respecting the extent of its conquered territories, after having effected the demarcation of the territory in accordance with the limits prescribed by the *lex*, then divided it into *centuriæ* in the following manner. First, a line of road, which was termed the *decumanus maximus*, was marked out across the whole territory from east to west, dividing it into two parts, which were called right and left, the right being to the north of the *agrimensor* as he looked west, and the left to the south. Then another line of road, which was termed the *cardo maximus*, dividing the territory into two more

parts, was drawn from south to north, the part on the west being described as *ultra*, and that on the east as *citra*. The four lines of road thus formed were termed *limites maximi*; the point where they met, which was the centre of the city about to be founded, was called *umblicus*; and the four divisions made by their intersection were styled *regiones*. The *decumanus maximus* and the *cardo maximus*, strictly speaking, always passed through the four great gates of the newly-founded city, in the direction of the four cardinal points of the compass, and continued with the same bearings to the verge of the territory, a process which was often practicable in a semi-barbarous country. When, however, the territory granted to the new colony was carved out of an old-established city, or when the city was to be placed upon the seashore, the *agrimensores* were forced to modify this rule and make the best approximation to it which was possible under the circumstances. Having marked out these four lines of road or *limites maximi*, the *agrimensores* proceeded to divide the four *regiones* into square or rectangular *centuriæ* or estates by drawing lesser *limites* or roads parallel to them, and called, according to their position, *decumani* and *cardines*.

The *limes* immediately parallel to the *decumanus maximus* and that immediately parallel to the *cardo maximus* were each termed *primus*, while the other *limites* in succession on either side were similarly distinguished by their appropriate numeration until the march of the territory, or *finitima linea*, was reached. In the provinces these *limites*—with the exception of every fifth recurring *limes*, which was called *quintarius* or *actuarius*—were termed *linearii*, but in Italy *subrun-*

vici. The *limites linearii* and *actuarii* were always narrower than the *limites maximi,* but the breadth of both classes of road depended in each colony upon the dimensions prescribed by its particular *lex colonica.* Thus the regulations of Augustus and a *lex agraria* of Claudius for Tuscany both gave the breadth of the *decumanus maximus* as 40 feet, that of the *cardo maximus* as 25 feet, that of the *limites actuarii,* both decumanal and cardinal, as 20 feet, and that of the *limites linearii* as 8 feet; while Siculus Flaccus makes the *decumanus maximus* and *cardo maximus* of equal breadth, varying from 30 to 15 or 12 feet, and the *subrunvici* or *linearii* 8 feet broad, and says nothing as to the breadth of the *quintarii.* The estates or *centuriæ,* each of which was isolated and self-contained by these *limites,* were, like them, first set out on both sides of the *cardo maximus* and *decumanus maximus,* and then continued until the marches were reached. They were usually each 200 *jugera* or acres in extent, in which case they were generally square in plan; but it was sometimes directed by the *lex colonica* that each estate should consist of 210 or of 240 *jugera,* in both of which cases the *centuriæ* took the form of oblong rectangular parallelograms. Owing to this division of the territory into square or rectangular blocks—a form which, it is to be noted, must have given an aspect of stiffness and formality to the scenery on the roads—and owing also to the fact that the boundaries of the territory were chiefly natural and irregular, it followed that there would almost always be land left over which could not be parcelled out in these strict quantities. When subject to no division this surplus

land formed the waste of the State, and was called *ager extra clausum*; but it was sometimes assigned in grants of 100 *jugera* or 50 *jugera*, called respectively *pro centuriæ* and *pro dimidia centuriæ*, which were the only exceptions from the one fixed quantity which the law allowed. As the grants of land assigned to the colonists consisted only of *agger cultus*, or land suitable for cultivation, there was also generally a certain portion of barren and worthless land which could not be parcelled out into *centuriæ*, and was therefore kept as waste to be enjoyed in common by the neighbouring proprietors.

It is important to bear in mind these details of the process of centuriation, because the *centuriæ* themselves offer valuable evidence for identifying the course of the roads which formed their boundaries. These estates, however much they might be ultimately subdivided or amalgamated in the lapse of time, were considered by the Roman law as indivisible, and were the units on which the State levied its taxation and imposed various other political obligations. In order, therefore, to limit them for ever within their original and normal bounds, the State, by means of the *lex colonica*, prescribed three varieties of permanent and inviolable signs which should always bear witness to their relative positions and extent. The first consisted of centurial stones, some of which were inscribed and some uninscribed. The stones which were inscribed bore either the numbers of the decumanal and cardinal lines of road bounding the *centuriæ* (*numerus limitum*), together with the name of the owner (*nomen possessoris*), or the name of the owner and the number of feet of one side of the *centuriæ* (*numerum pedaturæ*), or else the name of the owner alone. Secondly, and in lieu

of centurial stones, wooden stakes (*pali lignei*), heaps of stones (*scorpiones*), stone walls (*attinæ*), and tops of *amphoræ* stuck in the ground, were used as termini. Thirdly, the *agrimensores* made use of a system of underground signs, the principal of which were termed *botontini*, and consisted of walled structures supporting mounds of earth, under which were placed charcoal, broken pottery, gravel, pebbles brought from a distance, lime, ashes, or pitched stakes. Examples of all these modes of centuriation have been found in England and Wales, and the following copy of an inscription showing the *numerus limitum* on a centurial stone found at Manchester* provides an illustration of the mode in which they serve to identify the position of the territorial roads we are considering :

ɔ CANDIDI	
	XX
FIDES	
	IIII

In this inscription the mark at the commencement is the *siglum*, or abbreviation for the word *centuria;* the XX expresses the decumanal *limes ;* and the IIII is the number of the cardinal *limes* upon which the *centuria* of Candidus, the owner,† was situated. In addition to

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* See Gough's ' Camden,' vol. iii., 375.

† Mr. Coote, in ' The Romans of Britain,' p. 121, points out that the names inscribed on these centurial stones are a striking evidence of the number of Italian families settled as colonists in Britain. Among them may be enumerated the Valerii, Julii, Claudii, Rupilii, Marii, Cornelii, Trebonii, Varii, Hortilii, Galii, Muatii, Arrii, Noconii, Enii, Plaucii, Vecilii, and Artii.

this, evidence of the ' limitation ' of colonial territories in the form of junctions of four *limes* of road running from the four cardinal points to a common centre have been discovered in Lancashire, Surrey, Hampshire, Bedfordshire, Hertfordshire, Berkshire, and other English counties. There is, therefore, little doubt as to the general centuriation of Roman Britain, and the consequent existence in it of a numerous body of Roman landowners to whom the maintenance of the road systems of their colonies must have been of vital importance.

Such were the *limites*, or, as we might term them, territorial roads. It remains now to examine how far they were included under the classification of roads referred to above. It is pointed out by Mr. Coote, in the valuable paper on ' The Centuriation of Roman Britain,' from which this account of them has been largely drawn,* that the majority of antiquarian writers have apparently failed to see the distinction recognised by the Romans between the *limites maximi* and the *viæ militares*, probably because the writings of the *agrimensores*, who mention both classes of roads, and clearly distinguish the one from the other when treating of their art, are less accessible and less well known than the statements of the Roman lawyers on the subject. Ulpian defines the vicinal ways (*vicinales*), which we have styled cross-roads, as ' roads running through

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The Calpurnii were also settled in Britain, and in the fifth century this gens was represented in Britain by the great St. Patrick (Calpurnius Patricius).

   * *Archæologia*, vol. xlii., pp. 133-136, 138-147, 151-160. See, too, ' The Romans of Britain,' by the same author, pp. 42-121.

hamlets,' or the 'quarters of a town, or roads leading
to other roads.' In another passage he thus explains
the distinction between those vicinal ways which were
viæ publicæ and the military roads : ' Vicinal roads
through the properties of private individuals, which
were constructed in times immemorial, are public roads.
But there is this distinction between these and the
military ways, that the military ways have their termina-
tion either at the sea, or in cities, or at public rivers, or
in another military way, while of the vicinal ways some
have these terminations but others have not.' It seems
clear from these statements of Ulpian's that the *limites
maximi*, which had their termini in the colonial cities,
and by means of which the colonists communicated
with their own territorial capitals and with the cities
of the adjacent territories, were *viæ publicæ*, and were
included by the jurists under the general term of *viæ
militares*, because, while being less numerous, they
answered the same purpose as these, were framed upon
the same plan, had the same breadth, and were kept
up by the same means. It is also equally plain that
the lesser colonial *limites* opening into the *limites
maximi*, which were sometimes highways between town-
ship and township, and therefore *viæ publicæ*, and
sometimes only thoroughfares for the use of the house-
holders and their tenants, and therefore private, were
in a similar way comprehended under the term *viæ
vicinales*. ' Why this happened,' says Mr. Coote,* ' is
obvious. The lawyers, like the public, did not affect
the pedantic and old-fashioned phraseology of the
agrimensores when they spoke of roads any more than

* See *Archæologia*, vol. xlii., pp. 136, 137.

they did when they spoke of estates, which latter they never called *centuriæ*, but always *fundi*, a word in common daily use by the public. . . . This is a sufficiently probable explanation of a fact which of itself cannot be denied.' It may be added that when the *limites*, as was sometimes prescribed by the *lex colonica*, were made out of the land of the *centuriæ* which abutted upon them, they appear to have always remained private ways, however much the public might use them. It is to be presumed, however, that this rule could never have applied to the *limites maximi*, which from their nature and from their having their termini in colonial cities, must be assumed to have been always public roads.

The Roman public ways were, as has been stated, the property of the State, which therefore had the entire control of them, and supplied the funds for their construction and maintenance. Camden tells us that ' to keep these roads in repair the law (as appears from the Theodosian code) encouraged all persons to contribute their endeavours with becoming emulation '; that the Romans used to employ the soldiery and people in making them ' in order that inactivity might not give them an opportunity to raise disturbances '; and ' that criminals were frequently condemned to work on such roads, as we learn from Suetonius in the life of Caligula.'*
Each great line of road appears to have been under the control of an inspector-in-chief called the *curator viarum*, a dignity which was often assumed by the Emperors themselves. The names of more than twenty princes, from Augustus to Constantine, are found in

* See Gough's ' Camden' (2nd ed.), vol. i., p. xcv.

inscriptions commemorating their services in making
and maintaining public ways, and there is similar
evidence to show that Cæsar, Agrippa, and other
individuals of less note contributed large sums from
their private fortunes to the same object. So much
was the work considered a national one that even the
contractors employed (*mancipes*) were proud to associate
their names with it, as is shown by the inscription,
' *Mancipi Viæ Appiæ*,' placed by his widow as a last
tribute to his memory upon the tomb of a contractor
engaged in the construction of the Appian Way. A
further instance of the importance attached by the
State to the maintenance of the roads is shown by the
fact that we find Corbulo in the reign of Tiberius, after
due representations to the Senate, prosecuting several
persons on the ground that the roads were in a bad
condition owing to the frauds of the contractors and
the negligence of the magistrates, and that subsequently
the Emperor Claudius returned to many of the con-
tractors the sums that Corbulo had unjustly extracted
from them. Facts such as these sufficiently show the
high estimate formed by all classes of the Roman
people of the value of the great national undertakings,
which, by facilitating constant intercommunication,
served to knit together in one great State all the
different nations of which the Empire was composed.
This *national* character of the Roman road system is a
point which requires to be especially remembered in
connection with the history of British highways. In
the first place, it was undoubtedly the chief cause of the
excellent and probably unsurpassed construction and
extent of that system ; secondly, though British high-
ways after the Roman era gradually ceased to be

regarded as national, and have now rather grown to be considered as local works, yet the Roman system left behind it the foundation—the nucleus of which consisted of the so-called ' four royal ways '—upon which our present highway system must be considered to have been built. Lastly, with regard to the subject we are now considering, the maintenance of Roman highways, it seems only reasonable to conclude that public highways must have been held in much the same estimation by the Romanized inhabitants of distant provinces, like Britain, as by the Romans themselves. The evidence, imperfect as it is, derived from the *milliaries* or Roman milestones found in Britain, the characteristics of which will be described in a future chapter, is sufficient to show how steadily the work of making and maintaining highways in this country was carried on under each successive Emperor, and that even brief reigns of usurpers like Postumus and Victorinus were commemorated in its operations. The Roman Government of the provinces was, as we know, always conducted on the same principles, broadly speaking, as that of Italy itself, and we seem therefore justified in assuming that Roman Britain under the Empire had, like Rome, its *curatores viarum*, with a regular staff of contractors, engineers, and workmen.

The lesser cross-roads, country roads, and presumably all the *viæ privatæ*, were under the control of the rural authorities (*magistri pagorum*), and, like our own parish roads, appear to have been maintained by assessment, and in some cases by voluntary contributions, while the streets of cities were repaired by the inhabitants, each householder being responsible for the portion opposite to his house.

CHAPTER VII

THE CONSTRUCTION OF HIGHWAYS AND BRIDGES

Pioneer roads—Discoveries of portions of such roads in the peat mosses of Scotland—Directness of the great military roads—Marshes, rivers, forests, and mountains no obstacles—Structure of the *viæ publicæ*—Road-making as described by Vitruvius—His description verified by excavations on the Fosse Way—General rules modified to meet particular cases—Perfection of roads near Rome—Such perfection rarely existed in remoter provinces, but probably was found in a few cases in Britain—Construction of Scottish roads—Of lesser cross-roads and country roads, etc. — Bridge construction.

WE are now in a position to consider the actual methods adopted in the construction of roads, either by the Roman legionaries themselves or by Britons working under Roman supervision.

It is clear that the earlier or 'pioneer' roads made by armies on the march through a hostile country must of necessity have been far less elaborate and finished in their structure than the great military ways, of which they formed, so to say, the rude outline, and excavations in the peat mosses of Scotland have brought to light some interesting details regarding the method of their formation. Continuous portions of

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roads constructed by laying logs of wood closely to-
gether, sometimes in single, sometimes in double layers,
have been discovered in the Lochar moss near Dumfries,
in Flanders moss about eight miles west of Stirling, in
the mosses of Kippen, and in those of Kincardine in
Menteith.   These primitive highways have been found
at a depth of 5 or 6 feet below the peat, and can be
ascribed only to the Roman legionaries, since, as
pointed out by the author of ' Caledonia Romana,' ' it
is by no means probable that the native inhabitants,
while perfect freedom of action remained to them,
would engage in such labours as were calculated to
expose to their enemies the hidden retreats on which
their safety must so often have depended.'   It may be
noted, in connection with the presumption that these
roads must be of Roman origin, that the Romans,
although they drained many of our fens, appear also
to have laid the foundations of fresh morasses by the
process of cutting their roads through the forests.

   'The felled wood was left to rot on the surface; small
streams were choked up in the levels; pools formed in the
hollows; the soil beneath, shut out from the light and the
air, became unfitted to produce its former vegetation.   But
a new order of plants, the thick water mosses, began to
spring up; one generation budded and decayed over the
ruins of another; and what had been an overturned forest
became in the course of years a deep morass.'*

   The very mode in which these wooden roads were
made may thus be said to have prepared the way for
their burial beneath peat mosses in future ages.   They
seem, as a rule, to have presented the appearance of a

   * Hugh Miller's ' Lectures on Geology,' p. 8.

rudely-constructed raft, the trees used having been squared by the axe into logs; but in one case a way discovered not far from Annan was found to be composed of oaken planks, regularly shaped, and fastened down by stakes driven perpendicularly through them—a mode of construction perhaps resorted to because larger timber was scarce. There seems good reason to believe that these 'pioneer' ways were not confined to Scotland, but must have been used for temporary purposes in all parts of Britain during the earlier campaigns of the Romans. Mr. Pearson, after referring to the discoveries in the Scotch mosses, observes:

'I suspect a reminiscence of this strategy is contained in the audacious Welsh legend, which tells us that Caradoc, son of Bran, destroyed all the forests between the Severn and the Towy, because the Romans complained that they could not meet the Britons in the open field.'[*]

Rude highways of this description must have presented the advantages of being both easily and speedily constructed, and also sufficiently strong and durable to facilitate the passage of the cavalry and baggage waggons of the legions; and they must have been absolutely necessary whenever an army found itself obliged to leave the open country and to force its way through thick forests or over marshy and difficult ground. Their rough, slight, and yet practical construction presents a marked contrast to the solidity and finish of the great military roads now about to be noticed, of which they were the forerunners, and which, to quote Gibbon,[†] 'ran in a direct line from one city

[*] Pearson's 'Historical Maps,' Essay I., p. 4.
[†] 'Decline and Fall of the Roman Empire,' vol. i., p. 61.

to another, with very little respect for the obstacles either of Nature or private property.' To insure the straight course of the latter, huge marshes, as has been said, were drained, rapid rivers were bridged, and in some cases mountains were tunnelled ; and in no particular, judging by the case of the so-called High Street —a Roman road believed to have run in a direct line from Lincoln to the Humber-side—did the formation of the two classes of ways exhibit greater differences than when their lines ran through forests. In those portions of the High Street which traverse the woods of Lincolnshire, instead of the timber ways which we have been noticing we find a paved causeway, in one instance 7 English yards broad, the stones of which are set edgewise and very close to each other, in order to prevent the roots of the trees cut down for its passage from springing up and blinding the road.

The structure of the *viæ publicæ* was, as may be supposed, far more elaborate and perfect than that of the other varieties of roads, while that of the principal cross-roads, again, was probably more finished than that of the country roads, and that of the country roads than that of the by-roads. The system followed in making the most important roads is described by Vitruvius, a celebrated architect of the Augustan age (27 B.C. to A.D. 14), and his account is supplemented by a poem on the *Via Domitiana*—one of the lesser Italian roads—by Statius, a poet who wrote during the reign of Domitian, A.D. 81 to A.D. 96.*

* Vitruvius (VII.), Statius (' Silv.,' vol. iv., p. 3). See article *Viæ*, by Professor Ramsay in Dr. Smith's 'Dictionary of Greek and Roman Antiquities,' p. 1191. The details given by Vitruvius

The first step was to mark out the breadth of the road, which in the greater Roman ways in Italy seems to have varied from 11 to 15 feet, and in the inferior ones to have been not more than 8 feet. This was done by digging two shallow trenches (*salci*) parallel to each other, after which the loose sand between the two was excavated until a solid foundation (*gremium*) was reached for building the road upon. When the ground was swampy, or otherwise unfitted for making a firm basis, it was strengthened by driving piles into it, so as to form an artificial basis. Upon the *gremium* in most cases four distinct strata were laid. The first of these was the *statumen*, which consisted of stones not smaller than the hand could grasp. The second was the *rudus*, which consisted of what masons term ' rubble-work,' a mass of broken stones cemented with lime, rammed down hard, which was 9 inches thick. The third was the *nucleus*, which was 6 inches thick, and was formed of fragments of brick and pottery, smaller than the broken stones used for the *rudus*, but, like them, cemented with lime. The fourth and final stratum, called the *pavimentum*, was usually composed of large, irregularly-shaped polygonal blocks of the hardest stone (*silex*), so carefully fitted together as to form a perfectly even surface much resembling the

relate, strictly speaking, not to roads but to pavements. The remains of ancient pavements still existing and answering to his description correspond, however, so completely with the remains of the military roads that there can be no doubt that the process followed in each case was materially the same. The truth of this supposition has been fully verified by recent discoveries. See

polygonal walls of the old Pelasgian towns, but occasionally, at all events in cities, it appears to have been formed of rectangular slabs of stone (*saxum*). These four strata were, as has been said, always used in ordinary cases; but when the road passed over a rocky bed, forming a natural *gremium*, both the *statumen* and *rudus* were dispensed with, the *nucleus* being laid on the surface of the stones, which were smoothed to receive it. The centre of the way was always slightly raised, in order to allow water to run off easily, a fact which

SECTION OF A
ROMAN ROAD AT RADSTOCK
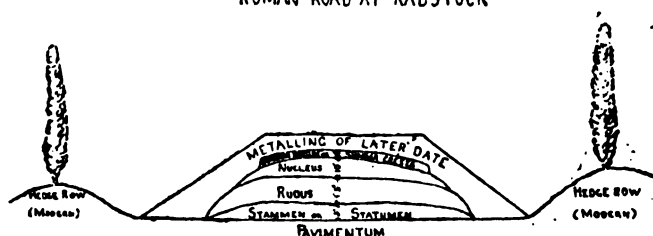
led to its being sometimes termed *summum dorsum* and sometimes *agger viæ*, though both these terms appear to have also applied to the whole surface of the *pavimentum*.

Some excavations on the old Fosse Way near Radstock, made in 1881 by Mr. McMurtrie, an archæologist whose professional experience as an engineer makes his testimony especially valuable, have served to demonstrate the truth of the above description in a very remarkable manner. The results of his examinations are described as follows in the *Proceedings of the Bath*

Natural   History   and   Antiquarian   Field   Club for
1881 :*

‘ The general appearance of the Fosse Road at Radstock
is very striking. . . . The land on each side being
perfectly level for some distance, the road rises boldly above
it in a prominent ridge, flanked by a deep ditch on either
side, the whole being bounded by hedgerows of by no
means recent date, although modern probably compared
with the ancient structure which they enclose. . . . The
most interesting feature presented is the formation of the
road itself, as exposed in the section excavated on the day
of the Society's visit, showing an extraordinary amount of
care and skill. . . . I was much gratified that this local
section exactly confirmed the description given by Vitru-
vius, layer corresponding with layer throughout the entire
structure. I have had two sections prepared. Fig. 1
gives a general view of the road, and of its elevation above
the adjacent land, while Fig. 2 shows the structure of the
road on an enlarged scale. It will be observed from the
former of these sections that after cutting through the
Roman work the original soil was met with at a level
corresponding as nearly as possible with the surface of the
adjacent fields, the whole formation of the road having
been raised above that level. The ditches on each side
are slightly below the level of the soil; the hedgerows
having been thrown up also rise above the adjoining level.
Though shown in this section, they are not necessary to
our consideration of this beautiful Roman work. No doubt
the road was constructed originally through a country only
partially cleared, and many centuries may have elapsed
before the lands were enclosed and fences became neces-

* See vol. iv., No. 4, p. 344 *et seq.*

sary for the purposes of cultivation.* Section II.,† there-
fore, in which the hedgerows have been omitted, may be
taken to show the road as it left the hands of the Roman
engineers. Taking the sections in ascending order, I
would observe that although we have in the bed of soil
reached the true representative of the *gremium* described
by Vitruvius, there is nothing in its appearance to indicate
that it was fine earth pounded and beaten in in the
manner described.‡ A layer of rubble stones appears on
the surface corresponding with the *statumen* of Vitruvius,
and in this instance no lime seems to have been used. It
is 5 inches thick in the centre, thins off on each side, and
each bed in ascending order becomes more convex in form.
Next in order is a bed of concrete of a very distinctive
character, 1 foot 3 inches thick, agreeing with the layer
which Vitruvius terms *rudus*, chiefly broken stones mixed
with lime, the material being of a yellow colour and
derived from the lias or oolite formations of the locality.
A thin layer of red marl and pebbles is found near the
middle of the bed, quite different from the other material
though amalgamated with it, derived probably from the
dolomite conglomerate in the neighbourhood of Stratton
on the Fosse, which it most resembles. Resting on the
bed I have described is another layer of finer material,
consisting apparently of inferior oolite or lias pounded very
fine, mixed with lime, and well rammed, which we have
little difficulty in identifying with the nucleus bed of

* With regard to this it must, however, be noted that, as has
been already mentioned, Chapter I., p. 4, the Romans enclosed
their cultivated lands with hedges, palings, walls, and earth banks.

† See p. 85.

‡ *Cf.* as to this what was said as to the rocky *gremium*,
ante, p. 85. The foundation would be, of course, always deter-
mined by the nature of the soil.

Vitruvius, 10½ inches deep in the centre, thinner at the sides, the upper surface being rounded off very symmetrically. On this was laid a course of paving-stones, which evidently formed the ancient surface of the Roman road, 4 to 5 inches thick, consisting of the thinner beds of the lias common in the neighbourhood. Vitruvius says this course, termed *summum dorsum,* was composed sometimes of stones set like the paving-stones in our streets, and sometimes of flag-stones cut square ; but in the Fosse Road at Radstock it consists of stones of all sizes and shapes put together as random work, the lime having probably been poured in afterwards. In this way the whole surface of the road was so firmly cemented together that, in removing it during the recent excavations, the stones more frequently split through the solid than separated at a joint.'

Of the two sections referred to in this extract, we give the second only, but with an indication of the existing hedgerows.

It will be seen from this account of the construction of the Fosse Way that, while the same general rules were followed in making the greater military ways in this country as in Italy, the Romans, as might be expected from their practical character, adapted and modified these rules according to the peculiarities of the soil in each particular case. Thus the great roads near Rome are said to have been so smooth and level that the Roman men of fashion delighted to drive about on them in chariots without springs. They had raised footpaths (*ambones*), sprinkled with gravel, on each side, the different parts of which were strengthened and bound together with stone wedges (*gomphi*) ; and at intervals along their course were placed stone blocks in

order to enable travellers on horseback to mount easily.
Though, however, the public roads in some of the most
prosperous provinces of the Empire, among which
Britain must certainly be numbered, may have ex-
hibited, in a few cases, the same degree of finish, their
perfection must naturally be supposed to have dimin-
ished in proportion to their distance from the capital.
Mr. Wright, after noticing the description of Vitruvius,
says :

‘ The result of the above process would be a Roman road
of the most perfect description ; but we must not suppose
that in any part of the Empire these directions were
always strictly adhered to.   On the contrary, there are few
Roman roads existing which do not in some way or other
vary from them ; some are entirely without the *nucleus,*
in others there is no *statumen.*   Nevertheless, there is
always found a sufficiently close resemblance between the
structure of the old Roman roads as they exist and the
directions above given.   They are often found in our
island in an extraordinary degree of perfection ; where
they have been used at the present time as highways, they
are naturally worn down, and it is only at rare intervals
that we can find any characteristic to identify them except
it be the extraordinary straightness of the course ; but
where the course of the road has been changed at a
subsequent period, and especially where it runs along an
uncultivated heath, the ancient Roman road often presents
itself to our view in an imposing embankment of several
miles together.   When they came upon higher ground the
Romans were not in the habit of intrenching, but they
often raised the embankment higher even than in the
plain, probably as a measure of precaution.   Thus, on the
summit of the Gogmagog Hills near Cambridge, the

embankment of the Roman road is very lofty and remarkably perfect.'*

In Scotland the Roman roads appear to have been from 18 to 24 feet wide, with a broad ditch on either side for the purpose of drainage, and to have been composed of various materials, according to the nature of the soil of the country through which they passed. Stuart tells us that where freestone could be used, it was shaped into square blocks, which gave the surface of the road on which they were placed 'something of the appearance of a well-built wall laid on its side.'† Roy says :

'Where granite or dry stone of a hard and durable nature was found near at hand, there they seem to have paved their roads, forming them into a sort of rough causeway, not much elevated in the middle. Where the materials consisted of soft freestone or of coarse gravel, they appear to have disposed of them stratum super stratum, in the same manner as the modern turnpike roads were constructed. In other places, where stone and gravel were scarce—that is to say, had to be brought from a distance, which is but seldom the case in North Britain—the Romans seem not only to have made their roads broader, but likewise higher, too, in proportion, from the promiscuous materials which the side ditches afforded, cementing them with a thinner coat of the hard stuff at top.'‡

The lesser cross-roads, country roads, and by-roads, though, as might be expected, constructed with much less care than the military ways which we have been

* 'The Celt, the Roman, and the Saxon,' p. 221.
† 'Caledonia Romana,' pp. 255, 256.
‡ 'The Military Antiquities of the Romans in Britain,' p. 108.

considering, were yet made sufficiently durable to have left distinct traces down to the present day. They appear to have been sometimes paved with flag-stones, as in the case of a road traversing the hills near Monmouth, in which the stones are of all shapes and sizes, though carefully fitted together. One of the best specimens of a Roman by-road is the so-called ' Fish-wife's Causey,' which runs from Edinburgh to the sea-side town of Portobello. The lesser roads, which have been referred to as having been made for commercial purposes, would also seem to have been constructed much in the same manner as the lesser cross-roads.

The Roman military roads were carried over the rivers which crossed their route by an extensive system of bridges. As early as the time of Cæsar the Roman armies were provided with bridging equipment, consisting of platforms of timber supported by wickerwork vessels, covered with skins of animals, while bridges on piles were constructed in the conquered provinces in connection with the military ways, one of the most remarkable of which was that built by Cæsar himself across the Rhine.* Vegetius, who wrote in the reign of Theodosius (A.D. 386), says that the Roman armies used to carry with them small boats hollowed out of the trunks of trees, together with planks and nails for the purpose of constructing temporary bridges, which were bound together with ropes. In the permanent bridges the width of the passage way was usually narrower than that of modern structures of the kind, and corresponded with the road leading to and from it. It consisted of three parts—a central road for horses

* ' Military Bridges,' by Sir Howard Douglas, p. 88.

and carriages, which was called *agger* or *iter*, and two
raised footpaths on each side (*decursoria*), protected by
parapet walls or balustrades.   Mr. Wright is of opinion
that a large number of the Roman bridges were still in
existence at the time of the Norman Conquest, and it
is certain that the remains of many formed the founda-
tions of modern structures.   They appear for the most
part to have been built of timber upon stone piers
without arches.   There is, however, a semicircular
arched bridge over the river Cock, near its junction
with the Wharfe, about half a mile from Tadcaster
(Calcaria) on the Roman road leading southward from
the town, which Mr. Roach Smith considers to be of
Roman workmanship.   On some of the stones of this
bridge the mason's mark, an R, is still distinctly visible.
London Bridge, which, judging from the coins found in
a continuous series in the river, was built early in the
Roman occupation, probably at first consisted of great
beams founded on piles.   The piers of the old bridge
over the Tyne at Newcastle, which was taken down in
1771, were of Roman masonry, the foundations being
laid on piles of fine black oak still in a state of perfect
preservation, and decided evidence of the Roman origin
of the structure was furnished by the discovery of coins
of Hadrian, which must have been buried for sixteen
centuries since its erection in A.D. 120, as well as of
Trajan, Antoninus Pius, Faustina the Elder, and other
succeeding Emperors, which were probably deposited
during alterations and repairs.   Roman work, equally
well preserved, was also discovered on the destruction, in
1815, of the bridge over the Teign in Devonshire, by
means of which the Roman road to Totnes and Ply-

mouth crossed the river. Dr. Bruce says that the foundations of three Roman bridges still remain in the district of Hadrian's Wall — one over the Tyne at Corbridge (Corstopitum), another over the North Tyne at Walwick Chesters (Cilurnum), and the third over the Rede Water at Risingham (Habitancum). None of these in his opinion had arches.

'The piers are of size and strength sufficient to withstand the thrust of the waters without the aid of an arch, and in at least one of these cases the requisite spring of the arch would have raised the road to an inconvenient height. An experienced mason, who examined carefully the ruins of the bridge at Habitancum, told me that he observed that all the stones which encumbered the spot were square, none of them having the shape of stones used in building arches.'*

Another example of a Roman bridge of similar construction was in existence little over a hundred years ago, which connected Caerleon with a hamlet, still known as Ultra Pontem, on the south side of the Usk, and Archdeacon Coxe, writing at the end of the eighteenth century, mentions that he nearly fell into the river owing to the looseness of the planks. It is stated by Pliny in his 'Natural History' that it was an article of religious faith with the Romans never to nail down the planks of a bridge, but the more probable object of this practice was to facilitate their immediate removal on the approach of an enemy.†

* 'The Roman Wall,' by the Rev. J. C. Bruce, p. 102.
† *Proceedings of the Cotswold Field Club,* vol. xii., pp. 14, 15.

CHAPTER VIII

MILESTONES, POST-STATIONS, AND ROADSIDE INNS

Road measurement—Difference between Roman and English miles—Varieties of Roman milestones (*milliaria*) found in Britain—*Milliaria* of twenty-one Emperors, from Hadrian to Constantine Junior, discovered in various counties—The *milliarium aureum* at Rome—Provincial *milliaria aurea*—Claims of 'London Stone' to the title—Governmental post-stations—Roadside inns—Posting-stations and inns enumerated in some of the Roman road books—Defects of Itinerary of Antoninus in this respect—Inns rarely used by wealthy travellers—Landowners sometimes built roadside taverns for the sale of their wine and farm produce.

THE distances on the Roman roads were made known to the traveller by milestones, usually called *milliaria*, but sometimes *lapides*. The former term was derived from the length of the Roman mile, which consisted of 1,000 paces (*mille passuum*); the latter was used in a more familiar sense, as may be gathered from the fact that we find the phrase *ad tertium lapidem* or *ad tertium* used to express the distance of three miles from Rome, and a station on the coast road, between Bittern (Clausentum), near Southampton, and Richborough (Rutupiæ), called *Ad Decimum*, to denote its being ten miles from Chichester (Regnum).

The exact length of the Roman mile, according to

English measurement, must be considered a moot point. The 1,000 paces composing it consisted of 5 Roman feet each, and while one theory assumes this foot to be equal to 11·6496 English inches, and the Roman mile to be, consequently, 1,618 yards, another makes the Roman foot 11·62 English inches, and the Roman mile only 1,614 English yards in length.* The question has naturally forced itself on the consideration of all those archæologists who have endeavoured to determine the distances from each other of the stations given in the Itineraries. In the scale of the map prefixed to Dr. Gale's edition of Antoninus's Itinerary, fifteen English miles answer to twenty Roman ones, and Horsley, commenting on this, remarks 'that the English miles in that scale must be common computed ones.' He also says:

'It would, perhaps, be thought impossible to lay down any proportion that statedly obtains between English computed miles and those in the Itinerary. And yet on a thorough and impartial trial, I find that through most part of England, wherever we are sure, the proportion of miles in the Itinerary to English computed miles is generally as three to four, or three computed miles make four in the Itinerary.'

On this passage the late Mr. Leman wrote the following valuable manuscript note:

'Nothing can be clearer than that the Roman miles were not always of the same length, but differed from each other like our computed ones, or like the leagues in France; for on measuring a space of ground where the country is perfectly level, the Roman miles differ but little

* 'Britannia Romana,' book iii., chap. ii., p. 382.

from our present measured ones, but are infinitely longer than ours where the *iter* passes over a mountainous country, for which reason I cannot help thinking that they calculated the distance between their several stations by "horizontal miles." Thus, on the road from Colchester to London, or from Richborough to the same place, where the surface is nearly level, the Roman miles do not differ from our measured ones, while in mountainous countries, as between Manchester and Tadcaster, between Ribchester and Ilkley, between Corbridge and Riechester, or between Wroxeter and Caernarvon, it requires in some places a mile and a quarter, and in the last instance even a mile and a half to make our present miles coincide with the Roman ones.'*

Lastly, Mr. Wright, who also discusses this question, concludes that it must be left undecided owing to the untrustworthiness of the Itineraries ;† and it must be added, with respect to this ' untrustworthiness,' that it has been pointed out by Messrs. Parthey and Pinder, in the preface to their edition of Antoninus's Itinerary,‡ that the letters M·P·M or M P̄, signify '*millia plus minus*'—*i.e.*, ' mileage approximately, and not, as was assumed by earlier editors, *millia passuum.*'

The Roman milestones were stone pillars, on the most perfect of which was inscribed, first, the distance, expressed by numbers either with or without M·P ; secondly, the places between which the road extended ; and thirdly, the name of the constructor of the road

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* See the copy of ' Britannia Romana,' with his own manuscript notes, presented by will to the Bath Literary and Scientific Institution by the Rev. T. Leman, p. 382.

† ' The Celt, the Roman, and the Saxon,' p. 225.

‡ Preface, p. xi.

and of the Emperor in whose reign the stone was
erected. In very many cases, however, one or more
of these details was omitted, and the only two per-
fect specimens found in Britain give merely the
name and titles of the reigning Emperor and the
number of miles which the milestone was distant
from the next station on the route.* There appears
to be some grounds for believing that the shapes of
these *milliaria* differed in the reigns of different
Emperors. Those of Augustus are said to have been
cylindrical, 24 inches in diameter, and bearing a simple
inscription engraved without any ornament; those of
Tiberius, square pedestals, slightly polished ; those
of Claudius, cylindrical, with a border enclosing the
inscription; as also were those of Antoninus, but not
so high, and with the portion in the ground square
like a pedestal and much larger than the body of the
column. Several stone pedestals, answering to the last
of these four varieties, with an opening on the top for
the insertion of a circular column, were at one time
still standing on the Roman way from Redesdale in
Northumberland to Chew Green. Others similar to
these—which were locally known as 'golden pots '—
have also been found on Roman ways in other parts
of Britain, and both Roy and Stuart agree in consider-
ing such pedestals to be the remains of *milliaria* erected
in the reign of Antoninus Pius,† an opinion containing
so many elements of probability that we cannot help

* The two milestones alluded to are one found near Leicester
in 1771, on the Fosse Way, and one found at Lincoln in 1879.

† See ' Military Antiquities of the Romans in Britain,'
pp. 108-111 ; ' Caledonia Romana,' pp. 256, 257.

regretting that no further evidence has as yet been forthcoming to confirm it. The *milliaria* hitherto identified in Britain appear to be usually cylindrical, though the last one discovered is a square quadrangular block of stone. In some parts of Scotland common 'moor stones' of granite, without any inscription, seem to have been used as milestones. It is evident that, were they more numerous and in a more perfect state, the *milliaria* that have been found in these islands would supply valuable evidence as to the course of the Roman ways, the date of their construction, and the identification of towns situated upon their routes.* Unfortunately, however, they are, comparatively speaking, both few and in a bad state of preservation. The total number actually identified is only fifty-five, for though two more supposed milestones have been discovered, they are both somewhat doubtful. The

* The majority (forty) of the Roman *milliaria* in Britain are fully described in Professor Hübner's 'Inscriptiones Britanniæ Latinæ,' under the head 'Viæ Publicæ,' pp. 206-214. A very interesting account is given of these forty milestones, together with recent discoveries (Mr. Watkin and others bringing the total number up to fifty-four or fifty-six, two being doubtful), in a paper by the Rev. Prebendary Scarth in the *Archæological Journal*, vol. xxxiv., pp. 395-405. Another milestone, discovered at Lincoln in 1879, has since been added to the collection, an interesting description of which will be found in a paper by the Rev. Prebendary Venables in the *Archæological Journal*, vol. xxxvi., pp. 281-284. For other details as to Roman *milliaria*, see the *Archæological Journal*, vol. xxxi., p. 353 *et seq.*, and vol. xxxiii., p. 53 *et seq.*; and as to probable milestones on the Yorkshire Wolds near the sea coast, see *Archæologia*, vol. xxvii., p. 404. See also Cooper King's 'History of Berkshire,' pp. 45, 46, as regards the Nymph or Imp stone, a possible milestone near Silchester.

earliest belongs to the age of Hadrian (A.D. 120), and the latest to that of Constantine Junior (A.D. 336), and they therefore extend over a period of little more than 200 years; which, though in itself considerable, manifestly embraces only half of that during which Roman roads were made and repaired in Britain. In addition to those of the two Emperors above mentioned, they comprise *milliaria* of Caracalla, Gordian, the two Philips, father and son, Decius, Gallus and Volusianus, Posthumus, Victorinus, Tertius, Aurelian, Florianus, Numerianus, Diocletian and Maximian, Maximinus Daza, Constantine the Great, and Crispus. The scarcity of these milestones must undoubtedly be attributed to their usefulness both for building and road-making purposes, since few in search of materials for either of these objects could be expected to spare a promising-looking block of stone on account of its cylindrical form, or of the few scarcely legible characters upon it. It might, therefore, perhaps be expected that unfrequented and sparsely populated districts like parts of Cornwall, Wales, and Cumberland and Northumberland would have produced the greatest number of *milliaria*. Hitherto, however, this is by no means the case. Only one has been found in Cornwall, and only eight in Wales; nine have been found in Lancashire and Cumberland together, and seven along the line of the Roman Wall, traversing the latter county and Northumberland. Eastern Britain—as Mr. Scarth terms the united counties Hants, Kent, Cambridgeshire, Northamptonshire, Huntingdonshire, and Worcestershire—has yielded thirteen, and Midland Britain— Hereford, Salop, Derbyshire, Leicestershire, and Lin-

7—2

colnshire—eleven. On the three earliest Roman roads
in Britain, those running from the Kentish coast at
Lympne, Dover, and Richborough to Canterbury and
thence to London, only one inscribed milestone has been
found; the Roman road from Chester through Lanca-
shire into Westmoreland has produced ten; and the
great north road traversing Yorkshire · and Durham
six. Lastly, as has been already mentioned, only two
out of these fifty-five milestones are in a perfect state
of preservation. The first of these is the earliest yet
discovered. It was found on the Fosse Way, two miles
from Leicester, in 1771, was apparently erected in the
reign of the Emperor Hadrian, and bears the following
inscription :*

<div align="center">

IMP. CAES.

DIV. TRAIANI, PARTH. F. DIV. NER. NEP.

TRAIAN. HADRIAN. AUG. P. P. TRIB.

POT. IV. COS. III. A. RATIS.

II.

</div>

The other, the latest found of the series, was dis-
covered in 1879 in the centre of the city of Lincoln, at
a point where four Roman roads intersect. It was
erected during the brief reign of Marcus Piavonius
Victorinus, one of the so-called ' thirty tyrants ' who
usurped the imperial power on the accession of the
effeminate Gallienus.

* See Hübner's ' Inscriptiones Britanniæ Latinæ,' p. 211
(No. 1,169). The date is fixed by the imperial title as A.D. 120-121.
See *Archæological Journal*, vol. xxxi., p. 353, and vol. xxxiv.,
p. 400. The stone is preserved in the local museum at Leicester.

The inscription is :*

IMP. CAES.

MARCO.

PIAVONIO.

VICTORI.

NO. P. FEL. INV.

AUG. PONT. MAX.   •

TR. P. P. P.

A. L. S. M.

P. XIIII.

The great roads diverging from the several gates of Rome were originally believed to have been all measured from a gilt marble pillar erected by Augustus in the forum, which was called the *milliarium aureum*.† This system of measurement is, however, said to have been begun by Julius Cæsar, and as the *milliarium aureum* was set up long after the regular milestones were placed on the roads, it is probable that they were measured

* See *Archæological Journal*, vol. xxxvi., pp. 281-284, and *cf.* a paper read by the Rev. Prebendary Scarth at Lincoln, July 28, 1880, at the annual meeting of the Archæological Society, on 'The Roman Occupation of Lincoln and the Eastern Portion of Britain.' The following reading of the inscription, which gives the imperial titles and the distance (fourteen miles) from Lincoln to Segelocum (Littleburgh-on-Trent), on the road to Doncaster and York, was given by Prebendary Wordsworth :

'IMPERATI CÆSARI MARCO PIAVONIO VICTORINO PIO FELICI INVICTO AUGUSTO PONTIFICO MAXIMO TRIBUNICIA PUTESTATE PATRIÆ AB SEGELOCO MILLIA PASSUUM XIIII.'

† 'Dictionary of Greek and Roman Antiquities,' p. 762. It seems doubtful, however, how far this system of measurement was carried out. See *Archæological Journal*, vol. xxiv., p. 398, note 1.

from the gates of the city.*   Some idea may be formed
of the vast tracts to which it was applied in the later
periods of the Empire by the calculation given by
Gibbon† of the measured distance from the Wall of
Antoninus in Britain to Rome, and thence to Jerusalem,
or from the north-west to the north-east point of the
Empire. The roads thus measured extended over no
less than 4,080 Roman miles, divided into the following
itinera :

(1) From the Wall of Antoninus to York, 222 miles ;
(2) London, 227 miles ; (3) Rutupiæ (Richborough or
Sandwich), 67 miles; (4) the navigation to Boulogne,
45 miles; (5) Rheims, 174 miles ; (6) Lyons, 330 miles;
(7) Milan, 324 miles ; (8) Rome, 426 miles ; (9) Brun-
dusium, 360 miles ; (10) the navigation to Dyrrachium,
40 miles ; (11) Byzantium, 711 miles ; (12) Ancyra,
283 miles; (13) Tarsus, 301 miles; (14) Antioch, 141
miles ; (15) Tyre, 252 miles; and (16) Jerusalem, 168
miles. Thus British roads may be called extensions of
the great North road, the *Via Flaminia,* which ran from
Rome through Umbria, and reached the coast at
Boulogne. It appears probable that each province of
the Empire had its *milliarium aureum,* and it is supposed
by some that the well-known 'London Stone,' now affixed
to the walls of St. Swithin's Church in Cannon Street, is
that from which the British roads were measured. The
only real evidence in support of this theory seems to be
that seven of the fifteen itinera of Antoninus terminate
in London—a fact which of itself can hardly be taken

* Smith's 'Dictionary of Greek and Roman Antiquities,'
3rd ed., article *Milliare.*
† 'Decline and Fall of the Roman Empire,' vol. i., p. 61.

as a sufficient proof of its truth. London, though doubtless an important commercial city in the time of the Romans, seems never to have been a great military station or seat of government, and to have had no claim to be considered the Roman capital of the British province. There seems no reason, therefore, why it should have been taken as a centre for the measurement of roads, and, in addition to this, it appears extremely doubtful whether the London Stone was ever inscribed, which would certainly, it is to be presumed, have been the case had it been a genuine *milliarium aureum*.

Throughout the course of the great Roman roads, at distances of a day's journey apart, were erected what may be termed governmental posting-stations, where gigs (*cisia* and *esseda*), post-horses (*agminales*), and postillions (*veredarii*) were kept for carrying the Government despatches or for the use of travellers. These establishments were called *mansiones*—from the Latin *manere*, to pass the night—and were under the superintendence of officers called *mansionarii* or *mancipes*, whose duty appears to have been, among other things, to stop travellers and examine their passports (*diplomata*). In early times they appear to have been merely entrenched encampments, and were called *castra*; but during the period of the Empire they included not only barracks and magazines of provisions (*horrea*) for the troops, but spacious buildings for the reception of all classes of travellers, and even of the Emperor himself, should he be obliged to halt at them. Smaller posting-stations, called *mutationes*, where horses could be changed and refreshment procured, were placed at intervals between the *mansiones*, there being generally four or

five of the former to one of the latter. Mr. Wright says that the keepers of these were termed *stratores*, a term which was also applied to officers sent into the provinces to select horses for the imperial stud or for the general service of the State.* The use of these posting-stations was, according to Gibbon, reserved for those who claimed it by an imperial mandate; but while primarily intended for the public service, was sometimes permitted to private citizens in cases of urgent necessity.†

In addition to the *mansiones* and *mutationes*, there were also, however, roadside inns on the Roman ways, where the traveller could procure food and lodging for himself and his horse. These were called *caupona*, *tabernæ*, *deversoriæ*, or *deversoria*, and their proprietors *caupones* or *deversores*.‡ One of the Roman road-books, compiled about the time of Constantine—the *Itinerarium a Burdigala Hierusalem usque*—enumerates in order all the *mansiones*, *mutationes*, and other more considerable places—called either *civitates*, *vici*, or *castella*—on the road from Bordeaux to Jerusalem, giving the distances between each. The only contemporary road-book of

* See article *mansio*, by Mr. James Yates, in Dr. Smith's 'Dictionary of Greek and Roman Antiquities,' p. 729; 'The Celt, the Roman, and the Saxon,' p. 223; and article *Stratores*, by Professor W. Ramsay, in Dr. Smith's 'Dictionary of Greek and Roman Antiquities,' p. 1074.

† 'Decline and Fall of the Roman Empire,' vol. i., p. 62. He cites the case of Pliny, who, though a Minister and a favourite, apologizes (Epist. x., pp. 121, 122) for granting post-horses to his wife on the most urgent business.

‡ 'The Celt, the Roman, and the Saxon,' p. 223; 'Caledonia Romana.'
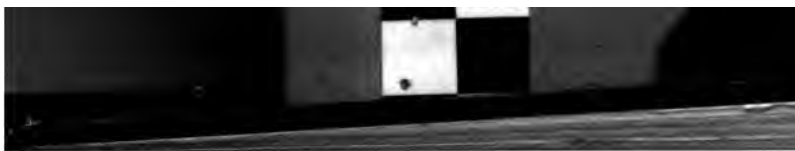
the Roman ways in Britain—the Itinerary of Antoninus, which will be more fully described later on—is, however, a mere list of names set down without any index as to the nature or size of the places they indicate, and a difficulty has therefore arisen in some cases in determining whether the stations given in the Itinera are towns or merely *mansiones*, or even *mutationes*. Moridunum, mentioned in the 12th and 15th Itinera, is an instance of this. ' The Ravenna Geographer' places it near Exeter (*Isca Dumnoniorum*), and Horsley considers it to be Eggerton Hill, between Dorchester and Bridport, while Leman and most later authorities believe it to be Seaton or else Hembury, near Honiton. But, whatever its locality, it seems probable that this station was only a *mutatio*, or at best a *mansio*, the traces of which have been altogether lost.

Miss Steel, in her work on 'Travel in the First Century after Christ,' says that very rich people who had plenty of friends along the route, and were also able to take tents and provisions for camping out, rarely used inns, and that these were mainly frequented by the lower classes.

'Often the building of an inn was the beginning of a hamlet, as in the case of the Tres Tabernæ on the Appian Way. Owners of estates found it profitable to build a tavern in the road hard by, make a freedman the host, and sell off their wine and farm produce. Sometimes inns were built by municipal authorities. . . . Sometimes, again, the cost of their erection was borne by the fiscus (the Imperial Treasury) in thinly populated or half civilized districts.'*

* P. 67.

CHAPTER IX

ROMAN VEHICLES IN BRITAIN

Two-wheeled gigs kept at governmental posting-stations for
use of travellers—Drivers punishable for careless driving—
Varieties of British vehicles adopted by the Romans—British
war-chariots—The *covinus*—The *carpentum*—The *rheda*—The
petorritum—The *carruca*—The *pilentum*—The *currus* or
chariot used in public games and triumphal processions—
The *plaustrum* or waggon.

THERE seems good ground for supposing that at least
seven different kinds of vehicles must have been in
common use in Roman Britain, two of which—the
cisium and the *essedum*—have already been referred to
as having been kept at the governmental posting-
stations (*mansiones* and *mutationes*).

The *cisium* was a light, open, two-wheeled carriage
constructed to carry two persons, with a box or case,
probably under the seat. The *essedum* was also a
two-wheeled car, made, like the *cisium*, for rapid
travelling, and very similar to it in build, the chief
difference between the two being that the *essedum* was
always drawn by a pair, and the *cisium* by a single
horse or mule. The drivers of these hired gigs were
liable at law to penalties for careless or dangerous
driving.

It is to be presumed that the Roman officials and colonists would probably bring with them, or cause to be constructed here, the different kinds of vehicles in common use in Italy, and that as these became common in these islands they would, like the dress, language, and arts of the conquerors, be adopted by the

ESSEDUM.   (Ginzrot.)

'Romanized' Britons. There were, however, as has been already mentioned,* no less than five varieties of conveyances in use among the Britons, as also among their kinsmen the Belgæ and Gauls, prior to the Roman conquests, and all these the Romans, who never neglected to turn to account any useful system or

* See *ante*, p. 28.

contrivance which they met with, appear to have adopted and modified to suit their own requirements. These vehicles were the *essedum* above mentioned, the *covinus*, the *carpentum*, the *rheda*, and the *petorritum*, and we shall proceed to notice them first before describing such as were more essentially Roman.

The Roman *essedum* — a name derived from the Celtic *essa* (carriage)—has already been described as a posting-carriage. The *essedum* of the Britons—which appears also to have been in use among the Belgæ, the Gauls, and the Germans—was a war chariot, which was used much in the same way as those of the ancient Greeks in the heroic age, but which differed from these in being stronger and heavier, and in having a pole sufficiently wide to enable the occupants to run along it, hurl their missiles, and retreat, and even, if they pleased, raise themselves upon the yoke. They seem also to have been constructed with the object of causing the wheels to produce a loud creaking and clanging, which was intended to strike dismay into the enemy. The charioteers, who are said to have driven them with remarkable skill and speed, were called *essedarii*, and appear to have ranked higher than their fighting companions, the exact reverse of the Greek usage. There were 4,000 of these *essedarii*, who seem to have held a very high rank in the British armies, in the force of Casivelaunus. Those who were captured were sometimes exhibited in the gladiatorial shows at Rome, where they appear to have been great favourites among the people.

The *covinus*—which took its name from the Celtic *kowain*—was, like the *essedum*, used as a war chariot of
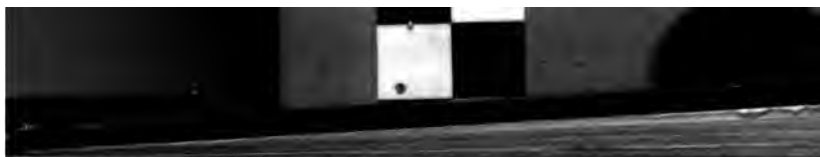
the Britons and Belgæ.   It appears to have been
made to carry only the charioteer who drove it, who
was termed the *covinarius*, and to have been covered on
all sides save the front with a view to protection.   The
spokes of the wheels were armed with scythes intended
to cut a way through the ranks of the enemy in a
charge.   The *covinarii* seem to have constituted a
regular and distinct portion of the British armies.
The *covinus* of the Romans was a kind of travelling
carriage, which seems to have been similar in form to
the British chariot without the scythes, being also
covered on all sides save the front, and constructed to
hold only the traveller, who drove himself.

Carpenta were largely used by the Britons, as well as
by the Gauls, the Cimbri, the Allobroges, the Helvetii,
and other northern nations, and, together with baggage-
waggons and other carts of the more common form,
seem to have been included under the general term
carrum or *carrus*, a Celtic name with a Latin termina-
tion signifying a four-wheeled carriage.   The Gauls
and the Helvetii always took a great number of them
on their military expeditions, and used them to form
lines of circumvallation round their encampments, and
it seems probable that the Britons must have used them
for the same purpose.   Cæsar is said to have first met
with them among the Gauls, from whom they may
perhaps therefore have been adopted by the Romans.
Be this as it may, however, there seems no doubt that
the *carpentum* was one of the earliest kinds of Roman
carriages of which we find any mention.   In the time of
the Republic, when the use of carriages in the city was
entirely forbidden, the Roman matrons were permitted

to attend the public festal processions in *carpenta*, a right sometimes granted in later periods as a special privilege to females of the imperial family. Under the Empire, however, though still used as a kind of State carriage, on which occasions it was richly ornamented, it seems also to have been used by private persons for journeys. It contained seats for two, and sometimes for three, persons besides the coachman, and was generally drawn by a pair of mules, though also occasionally by horses or oxen, and sometimes, like a *quadriga*, by four horses. It may be added that the Romans seem, like ourselves, to have had the custom of sending carriages to attend funerals, and that *carpenta*, elaborately adorned, were sometimes used for the purpose. In the games and other solemnities instituted by Caligula in honour of his deceased mother, Agrippina, her *carpentum* went in the procession—an event commemorated in an alto - relievo preserved in the British Museum, which was taken from a sarcophagus, and represents a close *carpentum* with four horses, while Mercury, the conductor of ghosts to Hades, appears on the front, and Castor and Pollux with their horses on the side-panels.

The *rheda* or *reda* was a four-wheeled carriage of Gallic origin, the name of which, perhaps, contains the same root as the German *reiten* and our *ride ;* and the facts that the Belgæ in Gaul and in Britain were of the same race, and that the language, manners, buildings, and, as the above examples show, most of the vehicles of the tribes on one side of the Channel were, in many respects, identical with those on the other, seem to justify the presumption that it must also have

been in use in these islands. It was the carriage usually used by the Romans for travelling purposes, and was often made sufficiently large to contain many persons as well as luggage and utensils of various kinds.

The *petorritum*—a name derived from the Celtic *petor* (four), and *rit* (a wheel)—was, like the *rheda*, a Gallic, and therefore also, for the reasons above mentioned, presumably a British carriage, which was adopted by the Romans. It differed from the *carpentum* in
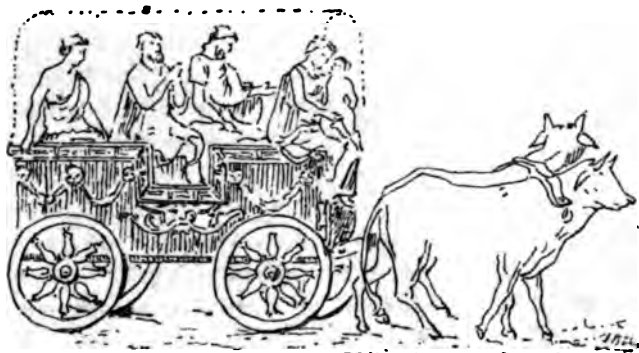
CARPENTUM.   (Ginzrot.)

being always uncovered, but, like it, was probably drawn usually by mules.

In addition to the varieties of vehicles above enumerated, there are four others which, having regard to the duration of the Roman occupation, may perhaps be assumed to have been used in Britain by the Romans, though, as they were essentially Roman in their origin, it is not possible to pronounce positively on this point —the *carruca*, the *pilentum*, the *currus*, and the *plaustrum*. It may be conjectured with a fair amount

of probability that the two first kinds of carriages were, in the first instance, brought over by Roman officials and individuals of high rank, and eventually were adopted to some extent by the Britons.   The discovery of the remains of amphitheatres near the sites of several of the larger cities of Roman Britain is evidence of the fact that the Romans held gladiatorial shows and games here as in their native country, and it may reasonably be assumed that the third variety of
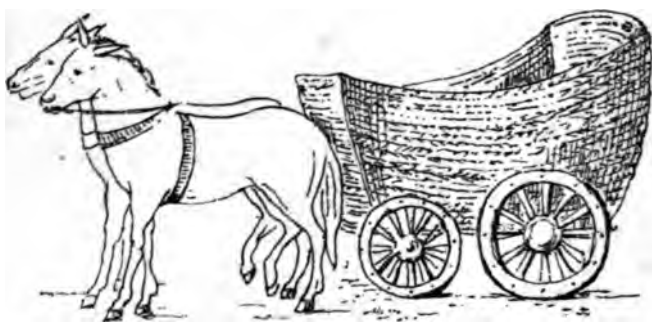
CARRUCA.
From Column of Trajan.   (Ginzrot.)

Roman vehicle—the *currus*—must have been introduced in connection with these.   The *plaustrum*, a kind of cart which is still in use in many parts of Europe, may also, perhaps, have been brought to these islands by the Romans as being in common use among them for agricultural purposes.

The *carruca*, the name of which occurs only under the Emperors, and which appears to have been a variety of the *rheda* above mentioned, was a four-wheeled

carriage used in travelling.   Nero is said to have never travelled without a thousand of these *carrucæ*, and they seem to have been largely used by the Roman nobility. Those belonging to the Emperors and to persons of distinction appear to have been covered with plates of bronze, silver, and even gold, which were sometimes ornamented with embossed work.   Thus we are told that Alexander Severus permitted the Roman senators to use *carrucæ* and *rhedæ* plated with silver,

CARRUCA.   (Ginzrot.)

and Martial speaks of a golden *carruca* (*aurea carruca*) which cost the value of a farm.   Sometimes, however, they seem to have been actually made of solid silver, while the trappings of the mules or horses which drew them were embossed with gold.   Gibbon tells us that these magnificent coaches continued to be in use from the time of Nero to that of Honorius, and he quotes a passage from Ammianus Marcellinus, in which the historian describes the nobles of his day as ' measuring their rank and consequence according to the loftiness of

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their chariots and the weight and magnificence of their dress.' 'Followed by a train of fifty servants,' says Marcellinus, 'and tearing up the pavement, they move along the streets with the same impetuous speed as if they travelled with post-horses, and the example of the senators is boldly imitated by the matrons and ladies, whose covered carriages are continually driving round the immense space of the city and suburbs.' The Romans seem, indeed, to have used their carriages much as we do our own. We learn that when St. Melania returned to Rome six years before the Gothic siege, the Appian Way was covered with the splendid equipages of the nobles who came out to meet her. Romans of rank probably travelled in *carrucæ* or *rhedæ* when they went to visit their estates in the country. On these occasions, Ammianus Marcellinus tells us, they were accompanied by their whole households, which, besides domestic officers, comprised an enormous number of cooks, attendants, and slaves; and we learn from Seneca that they were preceded by a troop of Numidian light horse, and that their baggage, including even precious vases and fragile vessels of crystal and porcelain, was transported by mules. Roman Britain appears to have been plentifully studded with the country seats (*villæ rusticæ*) above mentioned, and we may conclude that their wealthy owners performed their journeys to and from them much in the same manner as they would have done had they been situated in Italy. *Carrucæ* were also used for carrying women, on which occasions they seem to have been always drawn by mules, which are referred to by Ulpian as *mulæ camicariæ*.

The *pilentum* was a richly-ornamented, four-wheeled carriage, used for conveying the vestal virgins and the Roman matrons in sacred processions, and in going to the Circensian and other games—a distinction said to have been granted by the senate to the latter on account of their generously giving their gold and jewels on a particular occasion to the service of the State. It was furnished with soft cushions, and was probably very similar in form to the *carpentum*, but different from it in being open at the sides so as to allow its occupants both to see and be seen.

The *currus* or chariot seems to have been used by the Romans chiefly in the public games and in the triumphal processions of Roman Emperors and Generals. It had two wheels, and a single pole and yoke to which a pair of horses were attached by their necks, and differed from the *cisium* in being closed in front, and from the *carpentum* in being open overhead. When drawn by a pair it was styled *bigæ*, but it was often drawn by three and also by four horses, the third and fourth horses being attached to the chariot by traces, and it was then termed *trigæ*, or *quadrigæ*, according to the number of the horses. It was made to hold only the charioteer and one companion, both of whom stood. The chariots in which victorious Generals made their entry into Rome when celebrating their triumphs were always *quadrigæ*, magnificently decorated. The body of the car was curved in outline, and it differed from the ordinary chariot in having no poles, the horses being led by men on foot.

The *plaustrum* was a waggon which, in its commonest form, consisted of a pair of wheels and an axle and a

strong pole (*temo*), on the hinder part of which was
fastened a platform of wooden planks upon which the
load to be carried was placed, this being sometimes left
without any further support, and sometimes secured either
by boards at the sides or in a large wicker basket tied
upon the cart. Sometimes, but more rarely, the *plau-
strum* had four wheels, in which case it was termed
plaustrum magnus. In many cases, though not always,
the wheels were rigidly attached to the axle, which

WAR CHARIOT.
From an ancient lamp. (Ginzrot.)

revolved, as in our children's carts, within wooden rings,
termed *arbusculæ*, fastened to the body, the parts of
the axis which revolved within them being some-
times cased with iron. The commonest kind of cart-
wheel, termed *tympanum*, (the drum), from its re-
semblance to that musical instrument, was nearly a
foot in thickness, and was made either by sawing the
trunk of a tree across in a horizontal direction, or by
nailing together boards of the necessary shape and size.
These wheels are said to have served to keep the roads

in good repair, while at the same time they did not cut up the fields, but their construction made it necessary for the driver to take a long circuit in turning. The progress of the *plaustrum*, which appears to have been usually drawn by oxen, was slow, and was accompanied by a loud creaking noise, and they were also liable to be somewhat easily upset, while the waggoner was sometimes obliged to aid the team with his shoulder. The Emperor Hadrian prohibited heavily loaded waggons from entering Rome, but we have no evidence as to whether any similar rule may have prevailed in the chief cities of Roman Britain.

PLAUSTRUM.

From a bas-relief on a Roman tombstone at Langres.   (Ginzrot.)

CHAPTER X

ROMAN TRAVELLERS

Facilities for travelling in Britain during the Roman occupation
greater than in the eighteenth century—British highways
only formed a section of the Roman highway system—
Number and variety of travellers on the Roman roads—A
Roman army on the march—Some of the Emperors great
travellers—The journey of imperial officials—Passports—
Transport of merchandise—Traffic in the towns—Apparent
rarity of travel on horseback—Litters—Societies formed at
Rome for providing a service of public litters—Sedan chairs
—Journeys of private individuals—Speed of travelling—The
passion for travel originated with the Romans—The *viaticum*
and the *legativum*—Continuous stream of travellers between
Britain and the Continent—Dover and Boulogne relatively
as important in Roman as in British times—Legend with
respect to Britain current in Northern France in the fifth
century.

It is evident from the foregoing chapters that the faci-
lities for travelling in Britain must have been far greater
during the Roman occupation than at the beginning of
the eighteenth century, when the want of communica-
tion between London and the country districts was so
great that the inhabitants of the capital regarded those
of distant counties as almost belonging to a different
species, and a journey into the country was considered
as scarcely less formidable than a voyage to the Indies.

It was a common incident of travel in those days for the family coach, heavily loaded with luggage and provisions, to sink so deep in the stiff clay of the roads that the combined efforts of all the men and teams in a village were required to extricate it,* and the driver and men of the party were always provided with arms to resist the attacks of highwaymen, who were acquiesced in as necessary evils until the reign of William III. Under the Roman Empire there appears, indeed, to have been a good deal of brigandage on the roads at certain periods; but it was always systematically and sternly repressed by the imperial troops, and travel was far more secure throughout its territories than it was in England and in parts of the Continent up to the end of the eighteenth century, and than it now is in Syria, Palestine, Turkey, and other old Roman provinces. Though the perils of travel in this country gradually disappeared with the improvement of the roads, 'even twentieth-century England' might, as Miss Steel justly observes, 'well imitate the foresight and thoroughness which were the characteristics of the imperial system of communication.' †

It has been pointed out that the Romans constructed their road system in Britain, not only for military purposes, but also to facilitate civil administration and the development of commerce in the British province. It must also be remembered, however, that, as its construction was primarily governed by the requirements of imperial policy, they themselves regarded it merely as the most western section of the great network of

* See the 'Annual Register' for 1761.
† 'Travel in the First Century,' pp. 69, 70.

highways that extended 1,000 miles from the northern frontiers of Britain to the borders of Ethiopia, and to an even greater extent from east to west, which served both to bind together the heterogeneous mass of nations composing the Empire and also to connect them with Rome, the centre of the world's government and the emporium of its trade. A graphic description is given by Miss Steel of the different classes of travellers who frequented these great highways,* and several of those whom she enumerates must have been often met with on our own British roads. Some of the Emperors—such as Augustus, who is said to have visited every province except Africa and Sardinia, and Gaius and Domitian, whose journeys were dreaded on account of the devastation caused by their extortionate requisitions —were frequent travellers by them when visiting various parts of their dominions. Throughout the Empire they were constantly traversed by troops on the march, Government officials, and merchants; by wealthy citizens journeying to and from their country seats, or to seaside resorts, or in search of health ; by explorers, like Strabo the geographer; by students at the great schools of Rome, Athens, Alexandria, Smyrna, and Tarsus ;† by the motley crowd of musicians, jugglers, pedlars, and athletes visiting the fairs and great festivals, such as

* 'Travel in the First Century,' pp. 16-19.

† As already mentioned (see p. 8) a Roman-British university appears to have been founded at Llantwit, on the Glamorgan-shire coast, in the reign of Theodosius II., at which the more enlightened Britons, including Gildas, were educated. It reached its acme under the great St. Iltud, its Chancellor before the landing of St. Augustine in Kent, 520 A.D. See the *Archæo-logical Journal*, vol. vi. (1900).

the Nemean Games or Eleusinean Mysteries; by needy
adventurers on their way to Rome or great provincial
cities; and by the Jews, 'scattered abroad,' who went
up periodically to the feasts at Jerusalem. To these
may be added troops of slaves in charge of dealers con-
ducting them to Rome and other markets for their
trade; and in the provinces, such as Britain, the native
inhabitants, who were probably regarded by the
Romans proper in much the same light as those of
India are looked on by the British traveller.

Imperial officials travelled by the system of the Im-
perial Post described in a previous chapter, which was
strictly reserved for their use and for those who had re-
ceived a special passport called a *diploma*, consisting of
two folding tablets inscribed with the name of the reign-
ing Emperor, that of the person authorized to use the
Post, and the period for which the passport was avail-
able. The horses and mules mentioned as kept at the
various *mutationes* and *mansiones* were supplied by the
neighbouring communities until the reign of Claudius,
who transferred the charge of providing them to the Im-
perial Treasury in A.D. 49-50. The number of *muta-
tiones* where relays of horses could be obtained between
each *mansio* was generally six. A regular service of
'legionary centurions' drawn from legions stationed in
the provinces was, according to Mommsen, established
by Augustus to act as commissariat agents, couriers, and
wardens.

Merchandise appears to have been chiefly carried by
means of pack-horses (*caballi*), luggage mules or asses,
and waggons (*plaustra* or *sarracea*), the loads where pack
transport was used being carried in a pair of panniers

(*clitellæ*), though slaves may also have been employed
for the purpose.   In Britain it is probable that the use
of waggons predominated, for even before the Roman
conquest of the island it is stated by Deodorus Siculus
(vol. xxii.) that the land carriage of the tin exported
from Ictis (presumably identical with Vectis, the Isle of
Wight) in Britain to Gaul was performed by means of
.waggons in the former country and by pack-horses in
the latter—a fact, it may be noted, which seems to imply
that the British were superior to the Gaulish roads.
Customs duties were strictly levied at the frontiers and
at various points on the roads, all imported wares pay-
ing duty, while the export of others, especially iron,
was prohibited ; and in Britain, which was one of nine
specially organized taxation provinces,* the duty,
according to Miss Skeel, was probably 2½ per cent.†

Until the reign of Septimus Severus, riding and
driving were closely restricted, both in Rome and the
provincial cities, and the traffic in the ordinary provin-
cial towns seems to have been conducted as in some
oriental cities of the present day, where heavy burdens
are carried on the backs of horses, mules, or cattle,
while riding on horseback or in a litter is exceptional,
and driving unknown.   Even in Rome and the Italian
cities driving was only permitted at night, and the start
on a long journey was usually from one of the city gates,
where the chariot or coach was waiting in readiness.
On the highroads, on the other hand, carriage traffic

* The other eight provinces were Sicily ; Spanish provinces ;
Gallia Narbonensis ; the three Gauls ; Mœsea, Ripa, Thracia,
Pannonia, Dalmatia, Norrica ; Asia ; Bithynia ; and Egypt.
  † 'Travel in the First Century,' p. 42.

seems to have been so general for persons of any means that very few references occur to riding.

We learn from Lampridius, who lived in the fourth century, and wrote the lives of Commodus, Alexander Severus, and others of theEmperors, the methodical way in which the march of a Roman army to the scene of the campaign was conducted. In his life of Alexander Severus he tells us that ' public notice was given of his daily marches, in so much that an edict was fixed up two months before in which it was written : " such a day and at such an hour I shall set out from the city, and, if the Gods permit, stop at the first mansion "; and then the stages were mentioned in order, after that the stated quarters, and where they were to receive corn ; and this was continued till they came to the borders of the barbarians, after which all was concealed.'

Ward, who quotes this passage in his ' Essay on the Peutingerian Table in Horsley's " Britannia Romana," '* says that this practice was not peculiar to Severus, but was followed by all Roman commanders, and he refers in proof of this statement to a passage in one of the sermons of St. Ambrose.

In addition to the various kinds of carriages which have been described, the Romans made use of two or three varieties of litters and also of sedan chairs for travelling purposes.

Of these the chief was the *lectica*, which was originally used in early times, under the Republic, only for invalids, but was afterwards generally adopted as a means of conveyance, at first only for journeys outside the city, but eventually under the Empire, in Rome itself.

It was oblong in form, and consisted of a bed on which the person conveyed lay, his head being supported by a pillow in order that he might read and write with ease, with a roof, formed of a large piece of skin or leather, stretched over it and supported by four posts. The sides were also closed in earlier times with curtains (*vela plagæ* or *plagulæ*), but, under the Empire, with windows made of transparent material (*lapis specularis*). When standing it rested on four feet, generally made of wood. The *lectica* seems to have been frequently constructed so as to hold more persons than one. It was carried by means of poles (*asseres*), attached but not fixed to it, and easily removable, which rested on the shoulders of slaves, specially appointed for the purpose, who were called *lecticarii*. The number of slaves employed to carry a litter appears to have been generally two, but it varied, according to the size and the display of wealth which the owner wished to make, from two to eight. The *lecticarii* were always well dressed, and the tallest, strongest, and handsomest men among the slaves of a household were generally chosen for the duty. Another slave called the *anteambulo*,* whose office it was to make room for the *lectica* of his master, usually preceded it. After the reign of Claudius every wealthy Roman kept one or more *lecticæ*, with a corresponding number of *lecticarii*, and, in addition to this, there were also companies to establish public *lecticæ* (*corpus lecticariorum*), formed by enterprising freedmen—members of the Roman lower classes—which had their stands in the

* Probably the origin of the modern footman, who, when carriages were first introduced into this country, walked or ran in front of them to clear the way, a custom still remaining in India.

regio transtiberina, and probably in other parts of the
city, where anyone might take a *lectica* on hire. It
may be added that the term *lectica* was also applied
to the couches in which the dead were carried to the
grave. These *lecticæ funebres*—representations of which
have been found on several sepulchral monuments—
apparently differed very little in form from the *lecticæ*
used for purposes of conveyance, and seem to have been
carried in the same way ; but the *lecticarii,* instead of
being the slaves of private owners, were—at all events
during the later periods of the Empire—public servants
appointed for the purpose of bearing the deceased to
the place of burial without any expense to the family of
which he had been a member. The beauty and costli-
ness of the ornament of the *lectica funebris* were, of course,
dependent upon the rank and circumstances of the de-
ceased—that of Augustus, for example, being made of
gold and ivory, and covered with costly drapery work
of gold and purple.

There seems little doubt that a mode of conveyance
so popular among the Romans as the *lectica* must also
have been in common use in Britain. The same may
also probably be asserted with regard to the *basterna,*
another variety of litter, which appears to have been
reserved for the use of women only, and to be peculiar
to the period of the Empire. It seems to have very
closely resembled the *lectica,* but to have been carried
by two mules instead of by slaves.

The *arcera,* the third of the varieties of litter we
have mentioned, is said to have derived its name from
its likeness to an *arca* or chest. It was covered and
spread with clothes, and appears to have been used only
to carry the aged and the infirm.

There were two varieties of sedans in use among the Romans which are sometimes confounded with the *lectica*, though they were, in fact, entirely different from it. These were the *sella* and the *cathedra*, both of which were portable chairs in which the person carried sat upright instead of reclining as in the *lectica*. The chief difference between the two seems to have been that the *cathedra* had a soft seat, and was used only by women, while the *sella* was used by both sexes. The *sella* was sometimes open, but more generally closed, and when made roomy was spoken of as *laxa*, but when small was termed *sellula*. It was either made of plain leather, or ornamented with bone, ivory, silver or gold, according to the rank and fortune of the proprietor, and was used in the country as well as in the town. It was furnished with a cushion to support the head and neck, and the motion was so easy that the occupant might study without inconvenience, while it at the same time afforded healthful exercise.

Of the accounts by Roman authors of the journeys of private individuals, the best known is probably the description by Horace of that made by him in company with his friends, Virgil, Mecœnas, Plotius, and Varius, from Rome to Brindisi (Brundusium). They appear to have occupied twelve if not fifteen days in traversing 350 odd miles—an average at the best of from 25 to 30 miles a day. As, however, they entertained each other at their respective villas on the way, entered into all the amusements they met with on the road, and seem, in short, to have made their State business the excuse for a pleasure excursion, we must conclude that, as the poet indeed admits with regard to one portion

of the route, they travelled on the principle of spending two days over what other people accomplished in one.* Still, making due allowance for the nature of the journey, there seems little doubt that the rate of travelling at the time when Horace wrote—the commencement of the Empire—was slow; for Cicero, writing scarcely fifty years earlier, tells us, as if the fact were remarkable, that a messenger accomplished a drive of fifty-six miles in the *cisia* or gigs above mentioned in ten hours—a rate of under six Roman miles an hour. In the later periods of the Empire, however, when the Roman road system, the growth of which, in Horace's time, Augustus did so much to promote, had attained its full perfection, enormous distances were traversed in an extraordinarily short space of time. The well-known journey from Nicomedia in Bithynia to Boulogne, which enabled Constantine the Great to join his father, Constantius Chlorus, on the eve of his embarkation for Britain, and was thus the main cause of the former's election as Emperor by the army at York, was accomplished by relays of post-horses. Perhaps a still more remarkable instance of the speed attained in posting is the journey of Cæsarius, a magistrate of high rank, in the reign of Theodosius, who travelled by post from Antioch to Constantinople, a distance of 665 English miles, in less than *six* days, and traversed 165 miles of the route —from Antioch to Cappadocia—in one day. The Dic-

* Hor., 'Sermon,' lib. i., p. 5. The portion of the route alluded to was a canal, nineteen miles in length, called Decenovium, which ran parallel to the Appian Way, on which it was customary to embark at Berge Lange ('Forum Appii'). See lines 3-6.

tator Julius, famed for his rapid journeys, travelled 100 miles a day. The highest speed recorded is that attained by Tiberius, who covered the distance from Ticinum through Rhætia to Germany, which ordinarily occupied four days, in twenty-four hours, and was so enabled to attend the death-bed of his brother Drusus. The Imperial Post had an average speed of five miles an hour, but that of hired vehicles was necessarily lower.

The Romans may thus be said to have originated the passion for travel which has become one of the most marked characteristics of our own race, and an incidental illustration of their predilection in this respect is afforded by the fact that they used the single word *viaticum* to express everything required for a person starting on a journey—money, provisions, dress, vessels, etc.—while similar necessaries in the case of officials, magistrates, pro-consuls, and envoys, which were provided by the State, were designated *legativum*, the sum being fixed in proportion to the rank of the officer, whose power of demanding supplies was guaranteed by his insignia, or in the case of an envoy by his ring. It may be questioned whether many of our British ancestors, with the exception of the auxilliary troops raised in the island and the slaves transported to Rome, who left their country never to return, often crossed the Channel, but it is certain that there must have been a continuous stream of travellers passing between Britain and the Continent, and that the Roman Gessoriacum, Dubris, and Rutupiæ witnessed nearly as many embarkations and debarkations as the Boulogne, Dover, and Folkestone of to-day. Long after the fall of the Empire the traditions of this long period of

uninterrupted communication between the Roman province and the mainland may perhaps have originated the quaint legend current with respect to Britain in later ages—when its name had temporarily almost disappeared from historical records—which is narrated by Procopius in explanation of the immunity from tribute to the Frank Kings enjoyed by the fishermen and farmers of Northern Gaul on account of the mysterious nocturnal services they were called on to perform. Each in turn, he tells us, was roused from sleep by an unseen visitant, and, in company with others who had received the same supernatural summons, embarked from the beach in boats heavily laden with invisible forms whom it was their duty to row to Britain.

'The voyage to Brittia is accomplished in the space of an hour in those ghostly ships, though the boats of mortals hardly reached it by force of both sailing and rowing in a day and a night. The unseen passengers disembark in Brittia, and the oarsmen return in their lightened boats, hearing as they depart a voice speaking to the souls.'*

* 'Travel in the First Century,' p. 144.

CHAPTER XI

THE TOWNS OF ROMAN BRITAIN

Necessity for a description of the Roman towns of Britain—
Their powers of self-government—Their number and im-
portance—Their destruction extended over a long period—
Destructive agencies—Silchester—Two classes of towns in
Roman Britain—Their distinctive features—Their sites—
Towns most numerous in the southern parts of the island—
Road system also more perfect there—Dimensions and popu-
lation of the towns—London—St. Albans—Caerleon—Chester
—York—Gloucester—Lincoln—Colchester—Other towns—
Roman coins in Britain—Spurious coins—The ground-plan
of Roman towns—Roman masonry—Sewers—Hypocausts—
Pavements—Wall decorations—Building materials—The fate
of the towns of Roman Britain.

To give a detailed account of the towns of Roman
Britain, the majority of which have already formed the
subjects of excellent and exhaustive local monographs,
would be manifestly impossible within the limits of the
present work. As the larger towns were in all cases, how-
ever, traversed by at least one of the principal highways
and generally formed the meeting-point of several of
them, and as even the *mansiones* or minor stations and
the temporary camps which were occupied from time to
time by troops on the march were either close to the
main roads or connected with them by side approaches,

it is desirable to give some description of these towns
and of their chief characteristics.   To quote Kemble :*

    ' As the settlement of the natives and their reduction
under a centralizing system followed the victories of the
legions, Municipia and Colonia arose in every province,
the seats of garrisons, and the residences of military and
civic governors ; while as civilization extended, the Britons
themselves, adopting the manners and following the
customs of their masters, multiplied the numbers of the
towns upon all the great lines of internal communication.'

    There is little doubt that some of the larger towns
possessed a considerable amount of the internal freedom
and powers of self-government under municipal bodies
which were enjoyed by all the more important cities
throughout the Roman Empire, though the only four
of the British towns that are certainly known to have
exercised from an early period of the Roman Dominion
the full rights of self-governing colonies are Eboracum,
Lindum, Camulodunum, and Glevum. Of some 130
places mentioned in the Itinerary of Antoninus and the
' Notitia,' no fewer than forty-six may have been of
sufficient importance to entitle them to be described as
towns, and amongst them will be found the seats of
both our present archbishoprics and most of our
episcopal and old borough towns.†   It is believed that
at the time of the Roman abandonment of Britain at
least twenty-eight of these towns were of sufficient
importance for them to be defended by masonary walls.
Some of them, as, for instance, Bath and Buxton, are

* ' The Saxons in England,' vol. ii., p. 269.
† See Appendix IV.

known to have been used as sanatoria, and others contained arsenals, but with a few noteworthy exceptions their relative importance must always remain a subject for discussion and inquiry.

We must always regret how much our knowledge of Roman life in Britain has been limited by the ravages of time and of intervening generations, especially when it is realized how gradual though constant has been the work of destruction. In this country there is neither the heavy rainfall nor the tropical vegetation which have elsewhere caused the disintegration and disappearance of far larger cities and more ambitious works than those left by the Romans in Britain, and it is probable that even in the twelfth century many of our Roman towns or buildings were still standing— certainly in ruins, but in far better preservation than we can now realize. The appearance of such names as 'Cold Harbour,' and the termination of a place-name in 'cote,' is believed to be a sure indication of the use in comparatively modern times of Roman buildings for purposes of temporary shelter; and the occasional discovery of tessellated pavements, evidently injured by fires lighted in the corners of rooms, suggests the utilization by wayfarers or peasants of Roman ruins for purposes of temporary shelter at periods far removed from the original abandonment of these dwellings.

The great cause of the destruction of Roman remains above the surface of the ground was the fatal attraction they offered as quarries to the ecclesiastical builder and to the conquering Norman, both of whom fully realized the value of easily accessible building material, and the work of destruction was advanced by the omnipresent

treasure-seeker, to whom a ruin has always been a centre of attraction.   In many cases modern cities have come into existence on the sites once occupied by Roman towns, and the natural accumulation of débris, as at Bath and London, has buried the earlier remains perhaps 15 or 20 feet below the present ground-level ; and in this connection it is worth noticing that in as short an interval as 300 years soil has accumulated to a depth of 3 feet above the floor-level of some of our monastic buildings.   Elsewhere, as at Box and Woodchester, parish churches now partially cover the sites of magnificent villas, and in other places they probably occupy the ground on which once stood Roman temples. Antiquarian research, not always wisely directed, has itself sometimes assisted the work of destruction, for foundations and pavements have been uncovered and left exposed to autumn rains and winter frosts which have combined to obliterate the remains that had hitherto endured.   Silchester affords one of the few instances of an extensive Roman site that has not been encumbered by buildings of a later date, and where the Roman remains are only covered by a shallow layer of surface soil ; and it is here that systematic exploration under the supervision of specialists has been made on scientific principles with the best results, a careful survey of an excavated area being followed by the filling in of the excavations.*

The Roman towns in Britain may be divided into

* For an account of these investigations, see *Archæologia*, vol. xl., p. 403 ; vol. xlvi., pp. 329, 344 ; vol. l., p. 263 ; vol. lii., p. 733 ; vol. liii., pp. 263, 539 ; vol. liv., pp. 139, 199 ; vol. lv., pp. 215, 409 ; vol. lvi., pp. 103, 129 ; vol. lvii., pp. 96, 102, 112.

two classes—those that had their origin in Roman military camps, though these may have developed subsequently under the Romans into places of commercial as well as military importance; and those towns which were occupied for other than military reasons, which were not in the first instance and for any length of time occupied by a permanent garrison, and whose fortifications dated from a comparatively late period of the Roman dominion. Instances of the former class may be found in Chester and Caerleon, and of the latter in Silchester, Uriconium, and London. Of these latter the majority were probably built on the sites of earlier British settlements, and they can be readily identified by the somewhat irregular shape of their ground-plan and walls of circumvallation. On the other hand, the towns of military origin are in the form of rectangular parallelograms, and the regular outline made by the earthworks of the camp was perpetuated where walls of masonry replaced these earlier defences, and may still serve to indicate the origin of a city.

To whichever of these classes the Roman town may have belonged, it was usually placed in accordance with certain well-known requirements.

The towns are generally placed at points where at least one of the main roads crossed a river, and frequently at the point where the river ceased to be navigable, and admitted of being crossed by a bridge or ford. If a tributary stream here joined the main river, forming a peninsula, this was an additional advantage to the Romans, as the town was thus partially protected on at least two sides. Further, the larger towns were almost invariably established in rich alluvial country,

which was probably mainly given up to corn growing, and a southern aspect would be naturally desired by the invaders from a warmer climate.

The situation of the Roman towns is important, not only as it relates to the Roman road system, but because it shows in what districts Roman influence was greatest. If we take the following sixteen towns as being the largest of the Roman towns in Britain— Eboracum (York), Uriconium (Wroxeter), Deva (Chester), Lindum (Lincoln), Camulodunum (Colchester), Verulamium (St. Albans), Venta Icenorum (Norwich), Calleva Attrebatum (Silchester), Glevum (Gloucester), Corinium (Cirencester), Aquæ Sulis (Bath), Londinium (London), Regnum (Chichester), Durovernum (Canterbury), Durnovaria (Dorchester), and Venta Belgarum (Winchester)—it will be seen that, roughly speaking, three of the towns are in the north, four in the east, and the remaining nine in the south of the island ; and the size and richness of the Roman remains, and the distribution of tessellated pavements, all indicate the fact that, with the exception of certain districts—as, for instance, the line of Hadrian's Wall, parts of Lancashire, Cheshire, and Yorkshire, mining areas, and the vicinities of military posts—the Roman population was mainly concentrated in the southern half of Britain. We may therefore conclude that though the military roads necessarily extended to the furthest frontiers, the commercial and minor road systems must have been far more extensive and perfect within the southern area.

In considering the dimensions and populations of the Roman towns, certain facts must always be borne in
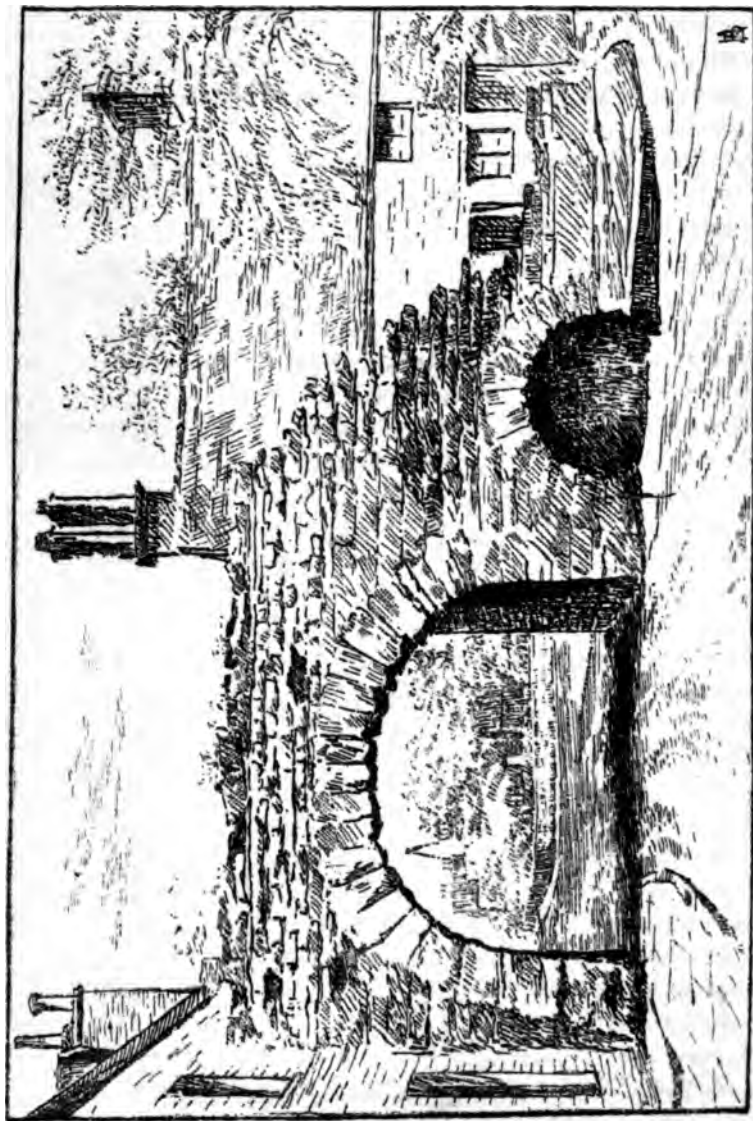
OLD ROMAN GATEWAY, LINCOLN.

The level of the roadway is several feet higher than it was in the Roman times.

mind. The manufactures of Roman Britain were comparatively insignificant, and practically limited to local requirements; hence almost the whole of the industrial population was employed in agriculture, and were country and not town dwellers. The bulk of the native population was to be found, not in the towns, but in small scattered communities and isolated families, existing with scanty comfort and few requirements, and probably with only the barest necessaries of life, while the foreign population with its immediate dependents occupied the towns with their suburbs and the country villas. It is interesting to see what facts exist on which an estimate of the numbers of the town population can be based. The majority of the Roman houses in Britain had probably no upper story, and where there was a second story the upper parts were of slight construction and of no great accommodation. The area within the town walls appears often to have been only partly built over, though, on the other hand, those parts of the town where no traces of foundation walls now exist may have been covered by huts similar to those occupied by the native agriculturists, and of which all traces would quickly disappear. It is, of course, known that the Roman house was usually roofed with tiles or slates, and the curious legend common to towns so far apart as Silchester and Wroxeter, which attributes the final destruction of these places to the besiegers catching birds, attaching lighted materials to them, and so igniting the roofs of buildings within the walls, may possibly have historic value as indicating the existence of these poorer quarters, and that the town population was therefore larger than we should otherwise sup-

pose. Further, it must be remembered that, with the exception of the few main streets, the houses were only separated from each other by narrow alleys, and were therefore more crowded than would be the case in an English town of to-day, and that in most instances there was almost certainly a considerable suburban population outside the walls. The enclosed areas of the larger Roman towns in Britain vary from some 250 to 50 acres, and the maximum circumference of the walls of any city is not much more than three miles. The local historian is, perhaps naturally, inclined to adopt the largest possible estimate as to the importance of the town with which he is dealing. Thus we find that the late Sir W. Besant in his ' London ' gives 35,000 to 70,000 as the possible estimate of the population of Roman London, apparently mainly basing his calculation on the length of the walls and on the number of defenders that would be required to man them. It may be doubted if the higher number is not in any case an excessive estimate, since, though Roman London was apparently mainly a commercial city, there is no proof that it was the port through which passed the main part of the Continental trade. The walls of London, which had then received the name of Augusta, are believed to have been built as late as A.D. 350-369, and the fact that they included sepulchral monuments, which are almost invariably found only without the walls of a Roman town, is an indication of the gradual growth of London, and a proof that it reached its greatest importance in the last period of the Roman occupation. It never appears to have held a large Roman garrison.

Now let us consider the case of Verulamium (St. Albans). The enclosed area of this town is some 190 acres, almost exactly half that comprised within the walls of Roman London, and its general plan and proportions have been compared with those of Pompeii, the area of which town was 167 acres. The amphitheatres of these two places are also very similar in dimensions, and would accommodate approximately the same numbers. The population of Pompeii has been estimated at from 20,000 to 30,000, and if we can accept this estimate as correct, that of Verulamium may have been at least 25,000, and that of Roman London 50,000.

With respect to the areas of other towns of Roman Britain, if we consider first the three towns that were for centuries legionary headquarters, we find the enclosed areas of Isca Silurum (Caerleon) to have been about 45 acres, Deva (Chester) 63 acres, and Eboracum (York) 74 acres, though the total area of this last city, which was for so long the Roman capital, must have at least equalled that of London, as it is known to have had large and populous suburbs, especially on its north and south sides. Other towns that for a considerable time were legionary headquarters are Glevum (Gloucester), which had an area of 46 acres; Lindum (Lincoln), which at first comprised 41 acres, but was at a later date enlarged to include 82 acres; and Camulodunum (Colchester), which finally included 112 acres, though the dimensions of the first colony at this place, which was destroyed by Boadicea, are unknown. Other important towns are Corinium (Cirencester), with an area of 240 acres; Uriconium (Wroxeter), of 223 acres; and Calleva (Silchester) and Ratæ (Leicester), each of

and which has often proved more durable than the stone itself. The loose rubble filling between the face walls seems generally to have been 'grouted in' with liquid mortar, and has solidified into a mass of great hardness. The arches are struck with full centres and with deep rings, as may be seen in the well-known 'Newport' of Lincoln, which affords the only existing example in England of a Roman city gateway that is in use at the present day. Old Roman material may still be seen worked up in Norman buildings, as at Guildford, Colchester, and elsewhere, and in places there even seems to have been an attempt made to imitate the Roman herring-bone work. There were usually outer and inner gates placed in the thickness of the town walls with guard chambers attached, and from the ironwork of a gate that has been found *in situ* at Silchester, it would appear that the gates themselves were of massive oak, some 4½ inches thick, and banded with iron. The principal streets were stone paved, and elaborate systems of sewers were constructed, which to some extent are still in use at Bath and Lincoln. Conduits from the public baths led the waste water outside the city walls, and the large exit that existed for this purpose at Silchester has been roughly walled up, evidently during some troublous times in the later existence of this town.

In the centre of the town, at the intersection of the chief roads, were placed the public buildings, the temples, and the houses of the officials and of the principal citizens. The walls of the domestic edifices are of about the same thickness as would be found in modern houses of moderate elevation; and the hypo-

causts, or underground heating chambers, which warmed the floors, and from which flues led up through the thickness of the walls, are a universal feature in all dwellings of any importance.   More rare, though not unknown, were open fireplaces.

The tessellated pavements, which constitute one of the most interesting features of the Roman dwelling, could only be adequately treated in a special work.   In some cases the beauty of their design and their admirable construction is extraordinary.*   The artistic feeling shown in the mural decorations, in plaster, fresco, or in their marble slabs, must have been equal in merit to that shown in the best pavements, though those decorations now necessarily survive in only the most fragmentary form.   Discoveries of broken glass show that both plate, ground, and coloured glass were used, probably sparingly, in the windows.   The upper stories of the houses were often of timber work filled in with wattle and daub.   The roofs, if not thatched, were of well-baked tiles or slates, the latter often being cut into hexagonal forms, and secured by iron nails to the wood-work of the roof, and there were ornamental affixes to the ridge terminals.

Before concluding this chapter some reference must be made to the fate which overtook these towns after the abandonment of Britain by the Romans.   A large number of them probably perished in flames amidst wild scenes of slaughter and despair.   British records and modern excavations indicate that this fate overtook the towns on the Welsh border, with, perhaps, the

* Some beautiful examples of these pavements are given in Lysons' 'Reliquiæ Britanniæ.'

FRAGMENT OF PAVEMENT AT ROMAN VILLA, CHEDWORTH.

This pavement has been selected for illustration on account of its elaborate detail. The figure shown represents a sportsman carrying a leveret and an antler.

solitary exception of Deva; and Aquæ Sulis, Corinium,
Glevum, Mancunium, Coccium, and Anderida were only
a few of the Roman settlements that were alike in their
tragic ending.   Tragedies can still be guessed at from
heaps of ashes and from skeletons of men, women, and
children found, as at Wroxeter, in crouching attitudes
in hypocausts and other places of concealment; and
the human bones frequently discovered at the bottoms
of wells, as at Brading in the Isle of Wight and
Brislington in Somersetshire, enable us to see the
ruthless savage removing the traces of a murderous raid.
Strangely enough, it is the towns and homes thus
destroyed which frequently best repay the modern
investigator.   Destruction must often have been so
sudden as to prevent the gradual and systematic
removal of articles of value, and to leave no one alive
who knew the secret hiding-'places of the household
treasures, while fallen roofs and levelled walls have
sometimes escaped the attention of the builder, who
has not spared edifices that were more readily notice-
able.   The fate of other towns is more doubtful.
London, for instance, may never have been wholly
abandoned, and its streets may still have been fre-
quented by a population which after an interval renewed
its prosperity; and it is doubtful whether the excava-
tions at Silchester have given proof of its being sacked
by invaders and its population slaughtered.   On the
Saxon shore of Roman Britain there was almost cer-
tainly in the closing years of the Roman dominion a
considerable immigrant population, kindred in race to
the invaders of the fifth century, and which may well
have been able to make terms with the conquerors

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and so escape annihilation. But of all the Roman cities, one alone is definitely known to have been occupied by its citizens possibly from British times, and certainly from the commencement of the Roman period, without any interruption, to our own days. Exeter, which first meets us in history as the British *Caer-Wisc*, the city on the Exe, and which we find at the most westerly termination of a Roman Itinerary, was undoubtedly a town of considerable importance, and its remote position spared it from contact with the Saxon invaders until their acceptance of Christianity and comparative civilization had made it possible for them to mingle peacefully with its existing population. Exeter, consequently, in the early stages of its existence, is almost unrecorded in history, and the good fortune of its inhabitants may be thereby judged. Unluckily from the antiquarian point of view, its uninterrupted and peaceful occupation has obliterated the traces of the Roman town to a far greater extent than has been the case with many towns of no greater importance, but whose fate was more unhappy.

CHAPTER XII

CAMPS AND FORTIFICATIONS

Roman defensive works include camps, temporary and permanent, and the great frontier defences—Distinction between Roman camps and those of earlier date—Camps of the Neolithic period—British camps—Old Sarum and Maiden Castle types of the latter—Roman camps—Their location and distinctive features have in many cases been obliterated by agricultural operations—Josephus on Roman camps—Conversion of Roman temporary camps into permanent stations and fortified towns—Roman camps in Scotland—Internal arrangements of Roman camps as described by Polybius and Hyginus—Roman fortresses—The fortified frontier line of the Cotswolds—The fortresses of the Saxon shore—Disappearance of all buildings except part of the outer walls of these *castella* considered—The frontier walls—The Wall of Antoninus Pius—The Wall of Hadrian—Unsolved problems—General description—Incidental remarks.

HARDLY less interesting than the towns of the Roman conquerors, which have been considered in the preceding chapter, are the remains of their various defensive works. These consist of camps temporarily occupied by the legions during their military operations; of camps which were subsequently converted into fortresses for the defence of inland frontiers, or, at a later period, for the protection of the coast; and, finally, of the great Walls which are associated with the names of

[147]   10—2

Hadrian and Antoninus Pius.   Earthwork camps form
necessarily the most numerous class, and they are to be
found throughout every part of Britain that was at any
time occupied by the Romans.   Traces, however, of
earlier British camps, some of which were subsequently
converted into Roman camps, are also very plentiful,
and it may therefore be advisable to notice their
distinguishing characteristics before considering those
of the Romans.

Pre-Roman camps are of two types.   The first,
believed to have been formed during the Neolithic
period, are small low-walled and banked enclosures in
rocky or hilly districts, where the natural features of
the ground assisted the defence.   Such are Wittor on
Dartmoor, 1½ acres in extent; Carlswark on the Derby-
shire Moors, partly defended by precipices and partly by
an earthen rampart faced with a vertical dry-built wall
of large stones, most of which are about 3½, though some
are as much as 6 to 9 feet in length, about 3 feet (the
width of the wall) in thickness, and about 1 foot in
depth; and Cissbury Hill, near Worthing.   The other
variety, whose construction dates from nearer the
Roman period, consists of earthworks, usually roughly
oval or elliptical in outline, surrounding the summit of
a hill, the open space in the centre being enclosed by
dykes and ramparts, and the approaches being by
tortuous passages through concentric lines of entrench-
ments.   Numerous examples of this type are found
throughout the British Isles, and amongst those in
England may be noted Pilsdon Pen in Dorset; Caer
Badon on Hampton Down, near Bath; Stantonbury
and Maesknoll in Somerset; Mount Caburn, near

Lewes; Mam Tor, near Castleton in Derbyshire; Burrowhill, near Leicester; Old Sarum in Wilts; and Maiden Castle in Dorsetshire. These last two entrenchments, like other British defensive works, were utilized by the Romans at a subsequent period. Old Sarum (Sorbiodunum) is an approximately circular earthwork some 300 feet above the river Avon, which
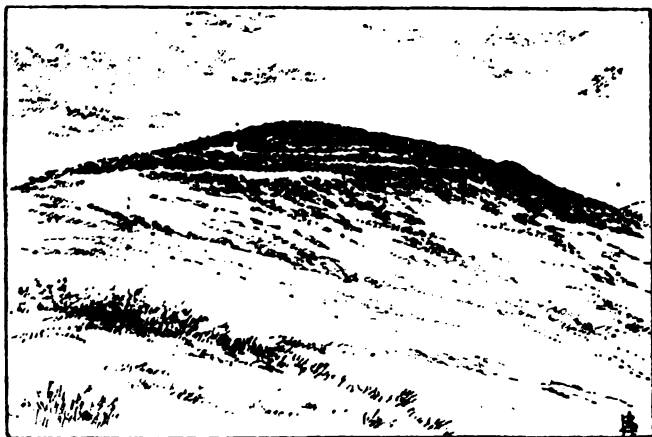
MOUNT CABURN IN SUSSEX.
A typical example of a British camp.

flows directly below it, the enclosed area being more than 27 acres, and the crest of the rampart 100 feet above the bottom of the ditch, of which the extreme width is 150 feet.* Maiden Castle (Mewdun—the great hill) is perhaps the most ambitious pre-Roman fortification that exists in Britain, and deserves a more detailed examination than can be here, given to it.

* See *Archæological Journal,* vol. xxxii., p. 291.

Placed on the summit of a hill some two miles from Dorchester, it is an irregular oval enclosure extending 1,000 yards from east to west, with a width of 500 yards from north to south, and occupies an area of 120 acres. On the north side, and close to the brow of the hill, are three tiers of ramparts with their intervening ditches, the depth from the crest of each parapet to the bottom of its ditch being not less than 60 feet, while on the south side, where the camp faces a slope that is easier of ascent, there are as many as five concentric lines of entrenchment. The entrances to the camps are at the east and west ends of the enclosure, and are so protected by overlapping ramparts and deep ditches that the interior can only be reached after passing through a labyrinth of earthworks. The western entrance, where the approach is almost level, has evidently had the most labour expended on its construction.*

It will have been observed that the camps of which we have hitherto spoken have always been placed on high ground, and in most cases their dimensions show that they were designed as strongholds in which the whole population of the locality with their cattle and belongings might obtain a temporary refuge in times of danger. Camps of purely Roman origin, on the other hand, were frequently placed on low ground, and were rectangular in outline, with the corners slightly rounded off, and a good illustration of the distinctive features of the two classes of camps is furnished by the comparison of the Roman camp at Dorchester on the Thames with the British entrenchment of Sinodun on the opposite

* See ' Ancient Dorset,' by Charles Warne, F.S.A., pp. 73-81.

hill south of the river. In the warfare of a period when every action was decided by hand-to-hand fighting, it was comparatively immaterial to the Romans whether their camps were commanded by higher ground if this higher ground was out of bowshot, as accessibility to fuel and water, and clear ground immediately round the entrenchments, were more important requirements. Owing to their situation in flat and fertile land, many of the less important Roman camps have been obliterated by agricultural operations, and the survival of so many to the present day indicates the enormous number that were constructed by the legionaries in Britain at different times. Josephus, in his account of the Jewish War, remarks that 'the Romans when invading an enemy's country never hazard an engagement until they have fortified a camp, which in form is a square with four gates, one on each side.' The Roman armies, indeed, never halted for a single night without forming such a camp for the protection of their troops, their transport, and their baggage ; and even if they were attacked on the march a detachment was, if possible, detailed to throw up entrenchments while the main body sustained the attack. In the preceding chapter the remarks made on the origin of Roman towns in Britain have shown how and why camps in certain situations gradually developed into permanent settlements. In such cases temporary camps became standing camps (*castra stativa*), which may either have been summer camps (*castra æstiva*), or winter camps (*castra hiberna*), and in the latter case, huts of turf or stone replaced the tents that were in use in the former. In southern Britain all the most important camps in

course of time grew into towns, and it is in Scotland, and especially on the verge of the Scottish Highlands, where Roman occupation was not permanent enough to permit such a transition, that the finest examples of Roman camps in our country are to be found. Of these camps, all of which were surveyed and reported on by General Roy* in the eighteenth century, that at Ardoch, near the spot where Agricola is supposed to have won his last great battle, and which, according to Mommsen, must have formed the base for his military operations in the North of Scotland, is 930 yards long by 650 yards broad ; that at Dealgenross measures 400 yards by 316 yards; and that at Battledykes, near Forfar; 616 yards by 350 yards. Authorities have estimated that some of these camps must have held from 25,000 to 70,000 men, though it may be added that Mommsen gives the more modest estimate of from 10,000 to 12,000 men for that at Ardoch, which was the largest of them all. Whether temporary or permanent, the main features and internal arrangement of the camp were determined by the same general principles.

We have two descriptions of a Roman camp, the first of which has been left by Polybius,† who describes a camp as laid out in the time of the late republic and earlier Empire, and the second by Hyginus,‡ a surveyor, who is supposed to have written in the reign of Severus, when the organization of the legion had been materially
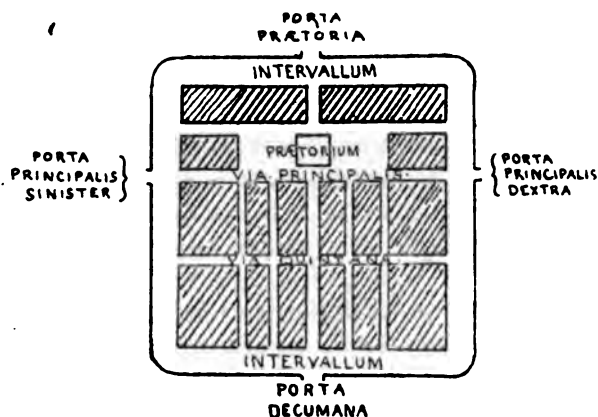
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* *Cf.* an article by G. J. Clark in the *Archæological Journal*, vol. xxxvii., p. 378, and Mommsen's ‘ Roman Provinces,' vol. i., p. 187.
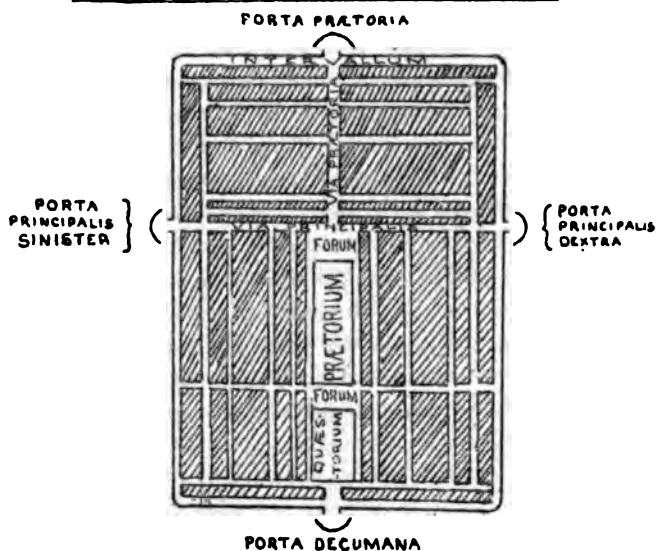
† Book vi.

‡ ‘ De Munitionibus Castrorum,’ Sections 4, 14, 17, 21, 37.

PORTA
PRÆTORIA

INTERVALLUM

PORTA
PRINCIPALIS
SINISTER

PRÆTORIUM

VIA PRINCIPALIS

PORTA
PRINCIPALIS
DEXTRA

INTERVALLUM

PORTA
DECUMANA

AN OF A ROMAN CAMP, AS DESCRIBED BY HYGINUS, IN THE PERIOD OF THE LATER EMPIRE

PORTA PRÆTORIA

PORTA
PRINCIPALIS
SINISTER

PORTA
PRINCIPALIS
DEXTRA

FORUM

PRÆTORIUM

FORUM

QUÆSITORIUM

PORTA DECUMANA

(Shaded areas indicate ground occupied by the troops.)

modified, and the Roman army consisted to a far greater extent of auxiliaries and irregulars. Without giving a comprehensive account of them, which would extend to too great length for the present purpose, it will be well to mention their general features as described both by Polybius and Hyginus, and to indicate the principal differences between the camps of these respective periods.*

Theoretically at both periods the camp faced east, but, as a matter of fact, it usually faced the enemy, and the ground was marked out by officers termed *metatores*, with graduated rods (*decempedæ*), on principles apparently not unlike those already described as governing the demarcation of the territories of a colony. A spot having been selected towards the centre of the camping-ground, it was marked by a small white flag, which in the earlier camps indicated the *prætorium*, or quarters of the prætor or commander. In later times this spot was termed the *groma*, and the *prætorium* was to the rear of it; but in both cases it was the spot from which all measurements were taken, and through it were drawn two straight lines, which here intersected at right angles, and served as the base lines by which the different divisions and the boundaries and entrances of the camp were determined. The four entrances were the *porta prætoria*, in the centre of the front, facing the enemy; the *porta decumana*, in the rear; the *porta principalis dextra*, on the right; and the *porta principalis sinistra*, on the left, these last two being connected by the *via principalis* running the whole width of the

* See for a full account Smith's 'Dictionary of Greek and Roman Antiquities,' article *Castra*.

camp, while between this road and the rear of the camp, and parallel to it, ran another road known as the *via quintana*. These two roads divided the camp into three segments, which were subdivided by minor roads intersecting them transversely, and between the encampment and the rampart a clear space was kept. In laying out the camp the chief points were marked by white poles, some of which bore flags of various colours, in order that the different bodies of troops, on reaching the ground, could at once discover their assigned positions. The camp was protected by an outer ditch (*fossa*), usually single, the earth from which formed the rampart (*vallum*), on which was placed a palisade of split timbers. Fragments of such palisading have been found at Wall in Staffordshire (Etocetum) and at Carlisle.*

At the time when Polybius wrote the camp was an exact square, while in that of Hyginus it had become a rectangular oblong, the front being one of the narrower sides of the oblong. The width of the *via principalis*, at first 100 feet, had been reduced to 60 feet; the *via quintana* from 50 feet to 40 feet; the minor streets from 50 feet to 20 feet; and the *inter vallum*, or space between the rampart and encampment proper, from 200 feet to 60 feet. In the later period the legionaries were placed next the *inter vallum*, the auxiliaries, as less reliable, being towards the centre of

* The palisades found at Wall (Etocetum) were of oak 12 feet in height, of which one-third was intended to be underground, and each timber was notched 3 feet from the top, so that when placed together a loophole was formed between the timbers that were thus notched. See *Archæologia*, vol. xxxvii., p. 380.

the camp.   The ditch, formerly sometimes as much as 15 feet deep, and the *vallum* as much as 12 feet high, were replaced by a shallow ditch perhaps only 3 feet deep and a *vallum* only 6 feet in height.   Consequently, the troops in the later form of camp were much more crowded than in the earlier camps, and the slighter profile and shortened perimeter of the earthworks suggest reluctance or inability to expend as much labour on constructive work as had formerly been considered desirable.   Much information has come down to us with respect to the routine observed in such matters as the methods of transmitting orders and passwords, striking tents, etc., and the entire literature of this subject is of great interest as suggesting the origin of modern military routine and custom.*

The next subject of this chapter, the Roman fortress, very frequently merged into a town on the advance of the Roman frontier and the removal of its garrison. A chain of forts,† which has been attributed to Ostorius Scapula, the successor of Aulus Plautius, deserves a special mention.   These forts, erected or adapted by the Romans, extended along the hills facing the Severn

* For a list of the principal camps, see Appendix V.

† These forts were situated at (1) Clifton Down; (2) King's Weston Hill; (3) Blaize Castle; (4) Knole Park; (5) Olveston; (6) Oldbury; (7) The Abbey; (8) Bloody Acre; (9) Bury Hill; (10) Dyrham; (11) Old Sodbury; (12) Horton; (13) Westridge; (14) Stinchcombe; (15) Uley Bury; (16) Standish Beacon; (17) Painswick; (18) Church Down; (19) High Brotheridge; (20) Whitcombe (doubtful); (21) Cuckly Hill; (22) Leckhampton; (23) Cleeve Hill; (24) Nottingham Hill; (25) Bredon Hill.   See article by Mr. L. Baker, *Archæologia*, vol. xix., p. 161, and also 'Illustrations of Roman Art in Cirencester,' by Professor J. Buckman and C. H. Newmarsh.

from Clifton Down to Bredon Hill, and were designed
for defence against the Silures of South Wales, while
they would also protect the Roman road connecting
Bath and Cirencester. The largest of them is Uley
Bury, which has an enclosed area of 32 acres, and is
regarded as one of the finest specimens of Roman
castramentation in England. The subjugation of the
Silures, and the occupation by the IInd Legion of Isca
Silurum (Caerleon), deprived them of their military
value; and as the positions of Aquæ Sulis (Bath),
Glevum (Gloucester), and Corinium (Cirencester) were
more attractive for civil settlements, it is probable that
these forts on the Cotswolds were abandoned at a com-
paratively early period in the Roman occupation.*

Other fortresses were the *castella* of the Saxon
Shore. Of these Rutupiæ (Richborough), Dubris
(Dover), and Regulbium (Reculver) were permanently
fortified at an early period in order to secure communi-
cation with the Continent; and two centuries later
they are mentioned, together with six other fortresses
erected about this period, in the ' Notitia Imperii ' as
forming the defences of the Saxon Shore. These addi-
tional fortresses, which were necessitated by the attacks

* A similar chain of forts, the construction of which has been
ascribed to Agricola, exists along the valley of the Usk. Their
positions have been identified as extending from Caerleon through
Usk, Abergavenny, Gaer in Cwm-dù, Gaer camp near Brecon,
Llywel, Bulch and Llandovery, to Ogofan, where gold was
extensively worked in Roman times. The facings of the walls of
the Gaer camp near Brecon, were used for the building of the
Norman castle at the latter place, but some portions remain
practically uninjured, and the whole outline of the works is
clearly traceable. See Poole's ' History of Brecon,' pp. 122-124.

of sea-rovers, were Branodunum (Brancaster), Gario-
nonum (Burgh Castle), Othona (St. Peter's Head in
Essex), Anderida (Pevensey), Portus Lemanis (Lympne),
and Portus Adurni (Bramber Castle). The construction
of some of these *castella* has been attributed to
Carausius, the successful Admiral and first independent
ruler of a united Britain,* while others may have been
erected in the reign of Valentinian, A.D. 368, at which
time the office of 'Count of the Saxon Shore' is first
mentioned.

As stated in a former chapter, the *castella*, like the
colonies (*civitates*), had lands allotted to them, which
are shown by the Theodosian and other Roman codes
to have been exclusively reserved for military tenants,
who held them by service of watch and ward. The
order in which they are enumerated in the 'Notitia'
may indicate their relative importance, as they are not
named according to their geographical position. In
some cases it is now impossible to ascertain their
dimensions, but the enclosed area of most of them was
from 6 to 8 acres. They were, as a rule, of the usual
quadrilateral form, with walls, semicircular towers, and
gateways of the type described in the chapter on
Roman Towns; and local variations, such as the occa-
sional absence of towers and the omission of binding
courses or other differences in the class of building work,
show that the engineer in charge was allowed a certain
latitude, and that the materials used were those which
happened to be most accessible. Thus, at Rutupiæ
(Richborough) the facing of the walls is sometimes of

* See an article by Mr. T. Lewin on the 'Castra of the
Littus Saxonicum' in *Archæologia*, vol. xli., p. 422.

local stone and sometimes of large flints. In every case, however, the core of the walls is formed by a solid mass of concrete, filled in from time to time in a liquid state while the facing walls were in process of building, and it is the difficulty of removing masonry thus constructed, and its comparative inadaptability for other building work, that has secured the partial survival of these Roman fortresses in Britain up to the present day. Temples, official buildings, and private dwellings in and around the *castella* have all long since disappeared, for their construction offered no such obstacles to the spoiler, and it is now impossible to estimate the size of the towns that must have grown up around them in the same manner that the medieval town arose near, and under the protection of, the baron's castle. Rutupiæ (Richborough), for example, at one time the headquarters of a legion, and a place of the greatest official importance, through which for a long time passed the chief Continental traffic, and whose oyster fisheries were famous throughout the Roman Empire, must have been far larger than is indicated by the size of its *castellum*. Anyone who has been present at the accidental destruction by fire of a poor quarter in an Oriental town can easily realize how speedily all vestiges of a city may disappear, and can thus understand to what an extent, under some circumstances, fire will obliterate traces of human habitation. One of the authors once witnessed such a spectacle when an area many acres in extent, covered mainly with mud and wattle houses with tiled and thatched roofs, was so cleared by the fire that the former inhabitants in many cases could not discover the positions of their vanished

dwellings, while a strong wind that was blowing at the time scattered the ashes far and wide. Left to itself for a few years, the site would have been indistinguishable from the surrounding country. It was curious to notice how many coins were mixed in the débris, for in almost every house there seemed to have been a little store of money, perhaps placed in a recess in the walls or in some similar place of safety. The walls had fallen, and the coins were scattered in every direction, and nothing less than a sifting of the entire surface soil would have insured their complete recovery. May we not here have an explanation of the extraordinary frequency with which scattered coins are still found on Roman sites, and the presence of so many other small metal articles, once of great value to their owners?

We must now consider the two great frontier Walls, which, apart from their roads, are the most enduring monuments that the Romans have left in these islands.

The northern wall, known to us as that of Antoninus Pius, was constructed about A.D. 139, and has already been referred to in the chapter on the Roman garrisons in Britain. It extended from the Firth of Forth to the Firth of Clyde, and the two chief towns of modern Scotland have arisen near its terminations. The work consisted of an immense fosse or ditch 40 feet wide and 20 feet deep, behind which, a few feet from its southern edge, was raised a rampart of sods, earth, and stones 24 feet high and 24 feet in thickness at its base. A parapet was erected on the northern face of the rampart, and in rear of the rampart ran a causeway 20 feet wide, which connected the military stations that were placed at intervals along the wall. There

appear to have been nineteen of these stations, probably situated rather more than two miles apart, and some of them may have been important enough to have been considered as small garrison towns.   In the intervals between the stations were smaller *castella*, or watch-towers, of which, in 1755, two or three were still standing.   The walls of many of the stations appear either to have been built with stones, or with stone revetments, and in some places the *vallum* itself had a stone foundation, probably to allow the percolation of water and to prevent its accumulation on the interior side, where the fall of the ground might cause this to occur. The actual length of the *vallum* cannot be accurately determined, owing to its present obliteration towards the extremities.   Large, well-executed inscriptions on stones still exist, showing which legions were employed in its formation and the length constructed by each detachment ; and this work as a whole presents fewer puzzles to the antiquary than does the more southerly line of defence which we know as Hadrian's Wall. This is probably owing to the northern wall having been held by the Romans for a much shorter period, and to its having escaped the additions, partial demolitions, and reconstructions which for nearly 300 years the southern wall must have undergone.*

Before discussing these different points, it will be more convenient to give a general account of the some-what complicated structure on the more southerly frontier line.   From the existing remains and from the earlier descriptions it appears that when complete the

* *Cf.* as to the northern wall, Skene's ' Celtic Scotland,' vol. i., pp. 76-79, 89.

work consisted, firstly, of a stone wall from 18 to 19 feet high and from 6 to 9½ feet thick, the average thickness being 8 feet, which extended from Tunnocleum (Bowness) on the Solway Firth to Segedunum (Wallsend) on the Tyne. Its length exceeded seventy-three miles, passing over a wild and desolate tract for a great part of its course, and reaching in places a height of more than 1,200 feet above sea-level.*

The facing stones, whose usual size is 15 to 20 inches in length by 10 to 11 inches wide and 8 to 9 inches

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SECTION OF THE WORKS NEAR THE EIGHTEENTH
MILESTONE WEST OF NEWCASTLE.

SECTION OF THE WORKS HALF A MILE WEST OF CARRAW.

The *vallum* or earth wall is uniformly to the south of the stone wall. It consists of three ramparts and a fosse. One of these ramparts is placed close on the southern edge of the ditch ; the two others, of larger dimensions, stand one to the north and the other to the south of it, at the distance of about 24 feet. The stone wall, though represented, is unhappily removed.

thick, were of good quality, and were occasionally quarried as much as seven or eight miles from the place where they were used. A shallow trench, 15 to 18 inches deep, was sometimes dug to receive the foundation, and on marshy soil a timber substructure was laid. Otherwise a foundation was absent, and the two lower courses of the wall slightly project, forming a sort of plinth. The interior of the wall was of the

* See illustration, p. 168.

usual rubble and concrete formation that has already been described. Inscribed stones built into the face of the wall still show how the work of construction was divided between the legionary detachments, and variations in the thickness of the wall indicate where their work was connected, the break in the alignment being on the southern face. Supporting the wall were eighteen fortified stations of the usual quadrilateral form, the masonry of which resembles that of the wall itself. Their enclosed areas vary from 3 to 6 acres, and they were crowded with official buildings, store-rooms, and barracks. In some stations that have been carefully explored the main streets are found to have been from 10 to 14 feet wide, and the minor streets or lanes only about 3 feet wide. Many of the stations had suburbs, villas, and other buildings outside their own walls and south of the great main wall. Between the stations, and at intervals of approximately a Roman mile (about seven furlongs) were *castella* or mile-castles, eighty-one in number, which were about 60 feet square in places, and had gateways, originally 10 feet wide, on their north and south faces. No important remains of buildings have been found inside them, and they possibly only held guard - rooms to give temporary shelter to their garrisons. The position of the *castella* depended to some extent on the natural features of the ground, a gorge or river-bed being always protected by one of these fortified posts. Between every two *castella* were placed at regular intervals four turrets, some 12 feet square in plan, which assisted in establishing a complete system of sentries along the course of the wall. In many places, especially in the more

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populous districts, the masonry of the wall and fortresses has now been almost entirely removed for building material, and elsewhere it has been used for road-making.   General Wade in particular in some places nearly obliterated the wall to make his great military road from Newcastle to Carlisle in the middle of the eighteenth century.

In front of the wall, and on the north side, ran a ditch, 36 feet wide and 15 feet deep, which has been cut through earth, sandstone, or basalt, and has only

A TURRET OF THE ROMAN WALL AT THE NINE NICKS OF
THIRLWALL.

been omitted when the natural defence of a cliff or river-bed made this additional protection unnecessary.   On the south side of the wall, at a varying distance from it, ran the military road, some 18 feet wide, which con-nected the stations on the wall, and intersected the great highways which led to and through it from Southern Britain.   It can still be clearly traced in many places, and till the middle of the eighteenth century was in occasional use for pack transport.

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The Itinerary of Antoninus gives evidence of the importance of the stations on the wall and of the military road that united them; but the most difficult problems in connection with the subject arise from a *vallum* which at some time was constructed on the south side of the *murus* or wall at a distance varying from only a few yards to half a mile, and consisting of another fosse and three parallel earth and stone mounds or *aggers*, which are still in places 7 or 8 feet in height. In section the fosse is not unlike that on the north side of the wall, but is considerably smaller, being about 7 feet deep and 17 feet wide, and the ' spoil ' from it has been formed into the three banks or *aggers*, one of which is about 24 feet to the north of this southern fosse, another on the southern edge of the fosse, and the third about 24 feet still further south.

This fosse with its triple row of banks generally approaches the wall near the fortified stations, and while the wall proper as far as possible follows the ridge line of the hills, the *vallum* is usually on the reverse slope towards the south. It appears certain that a chain of forts was constructed across this district by Agricola prior to his campaigns in Scotland, and they probably occupied the sites of some of the later walled stations. Some authorities have seen in the mysterious *vallum* an earth-wall defensive line of Hadrian's, and attribute the stone wall to Severus. The position of the *vallum*, however, is better adapted for defence against the South than against the North, and this theory has few advocates. Another school claims that the wall and *vallum* are contemporaneous, and attribute them to Hadrian. The object of the *vallum* would be the protection of the wall and its garrisons against raids from partially

PORTION OF THE ROMAN WALL ON THE NINE NICKS OF THIRLWALL, NORTHUMBERLAND.

subdued tribes to the south of it, and it would also secure the military way and a certain amount of grazing ground. There are difficulties in the way of this explanation—the position of the banks, for instance—but it certainly has more to recommend it than the final suggestion that the *vallum* was a purely civil boundary, and only denoted the limit of a province.

We know with certainty, however, that the wall and the fortresses were repeatedly altered and repaired. If it dated from Hadrian, A.D. 119, it was broken through from the north about A.D. 180-184, and repaired in the latter year. It was strengthened by Severus about A.D. 207. Again broken through in A.D. 363-364, it was repaired, probably for the last time, in A.D. 369, by Theodosius. Two at least of the stations were at some time enlarged, their ground-plan being altered from square to oblong, and the extensions being made to project beyond the northern face of the wall. The use of Roman tombstones for repairs and other discoveries made in the process of excavation make it certain that repair or reconstruction at one period at least was done in a hurried manner.

Many problems thus await a solution which may never be attained, but it is worth recording that, according to one computation, the labour of 10,000 men for at least two years would be required for the construction of the entire work in the present day, and that its cost would exceed £1,000,000 of our money ; and to quote Mr. Bruce, the historian of the wall, ' as this work in grandeur and conception is worthy of the mistress of the nations, so in durability of structure is it the becoming offspring of the " Eternal City." '*

* ' The Roman Wall,' p. 1.

SOUTHERN FOSSE OF VALLUM BETWEEN MAGNA AND ÆSICA, LOOKING EASTWARD, WITH WHINSHIELDS, THE HIGHEST HILL CROSSED BY THE WALL, IN THE DISTANCE.

(From a water-colour drawing by Miss M. Coulson.)

CHAPTER XIII

THE OBLITERATION OF THE ROMAN HIGHWAY SYSTEM, AND THE SUBSEQUENT HISTORY OF MODERN ROADS.

Existing Roman remains survivals of fifteen centuries of obliteration—Objects of the Roman highway system ceased to exist on withdrawal of the legions—Unfavourable conditions to road-making during the two succeeding centuries—Portions of Roman highways became basis of a new national system—Nomenclature of the new system—The four great roads—Are mentioned both in Anglo-Saxon and Norman laws—The most prominent feature in the mediæval road system—Impetus to road-making after the Norman Conquest—Erection of castles, monasteries, and fortified towns—Large amount of travelling during Middle Ages—Royal Itineraries—Hospitality to travellers at monasteries and castles—Fairs and markets—Growth of foreign trade—Road maintenance under the common law and the feudal system—Aid to travellers a 'pious work'—Guilds for making roads and bridges—Grant of indulgences for performance of such works—Chapels on bridges—Inadequacy of legal provisions necessitated constant applications to Parliament—Theoretical provisions for safety of travellers equally ineffective—Mediæval carriages—Coaches not generally used till the seventeenth century—Travelling on horseback almost universal—Mediæval system sufficient for requirements of the period—Injurious effects of the 'Black Death,' of destruction of feudal system, and of dissolution of the monasteries—No new roads constructed between 1503 and 1702—Inadequacy of

of commercial enterprise throughout Europe, and the grant of their freedom to the British cities by Honorius converted them into so many separate communities under provincial governors, the mutual jealousies of which effectually prevented the maintenance of any national system of highways.   When not engaged in internal conflicts, these cities were fully occupied in repelling the invasions of the Picts and the Saxons, and the close of the stormy independence maintained by them for barely fifty years was followed by the scarcely less disturbed period which witnessed the gradual formation of the Saxon Heptarchy, the last kingdom of which, Mercia, was founded more than a century after Kent, the first, and was not included in a United England until the early part of the ninth century.

Unfavourable, however, as were the conditions for their maintenance during at least the first 200 years of the period under consideration, the old Roman roads, though diverted from their original objects, were nevertheless partially preserved, on the one hand by the permanence of their structure, and on the other by the fact that they still supplied the only means of communication between different parts of the kingdom— from the coast to London, from London to the North, from the East to the extreme West, and between those towns which, as already noticed,* preserved their existence by compounding with the Saxons.   Mr. Pearson, who believes Saxon England to have been studded over with townships, owing their existence to the establishment of a port or a market, an abbey or diocesan palace, etc., and with populations varying from 200 to

* Pp. 145, 146.

10,000, gives the Saxon names of fifty of such towns exhibiting the connection between Roman and Saxon times. This number was gradually increased by the creation of towns of purely Saxon origin, till at the time of the compilation of Doomsday Book the total number recorded is 107, and the existence of these towns implies the maintenance of roads of some description.* Though during the earlier period of Saxon rule many towns were built largely of wood, and in one year alone (A.D. 764) no less than six cities—London, Winchester, York, Doncaster, Dunwich, and Stretbury—were burned down through fires, apparently caused by lightning, and though the Danes destroyed many others in the North, it may fairly be assumed that during the ninth and tenth centuries, when Saxon England enjoyed a settled government and had become wealthy and prosperous, a new national system of highways had come into existence.

While Ammianus Marcellinus, who wrote during the reign of Valens (A.D. 364-373), calls the Roman roads ' public travelling banks,' and Sidonius Apollinaris, writing about the middle of the fifth century, still describes them as ' banks ' and ' earthworks piled up '— evidently an allusion to what was so marked a feature in Roman road construction, Bede, whose works were composed at the end of the seventh century, and other later Saxon writers term them *streets*. It was probably, therefore, at some period between the sixth and seventh century that the four great national roads—Watling Street, Fosse Way, Ermine Street, Ikenild Street, and also the Akeman Street, the Ryknield Way, and other lesser roads,

* Pearson's ' Historical Maps,' pp, 26, 27 ; and *cf.* Sir H. Ellis's ' Introduction to Doomsday Book,' and also see Appendix V.

the disputed origin of which has already been discussed
in a former chapter*—first acquired their present names.
To the theories with respect to this nomenclature there
mentioned may be added that suggested by Dyer in his
'Vulgar Errors,'† which derives these names from Gaelic
roots, as, for example, Akeman Street from *Acha*, a bank
or ridge, and *moun*, land ; and in particular districts,
such as Cornwall and Wales, where the Celtic element
predominated among the population, both this and the
Greek theory of Dr. Phéné may in some cases be
accepted as probable.   Having regard, however, to the
notable increase in the number of settlers of Teutonic
extraction during the Roman occupation,‡ we must
conclude with Mr. Elton, as respects the most important
of these roads, that 'there is little doubt that these
names were connected with the Teutonic mythology,
though the glory of the hero 'Irmin' and the craft of

* Pp. 33-36.

† Pp. 16-18.   He similarly derives Watling Street from *wat*,
a ridge, and *ling*, a line ; Portway from *port*, a bank, and the
Maiden Way from *aid*, a hill or ridge, and *en*, land.   On the
other hand, a pass crossing the Fells from Kirkby Thore to
Carvoran, called the Maiden Way, is derived by a writer in
Archæologia (vol. xxxi., p. 280) from *madan*, the vernacular for
fair ; and Portway is said to be applied to roads leading to
Roman towns or camps (*Archæologia*, vol. x., p. 171 ; vol. xvi.,
p. 184 ; and vol. xxii., p. 80).   As regards the term *Fortyfootway*,
Mr. Coote in the article already quoted with respect to the
colonial roads (*limites*), *Archæologia*, vol. xlii., points out that
this is the ordinary breadth of the *decumanus maximus* of these
roads.   Roads bearing this name exist at Walcote, and also at
Caistor in Northants.

‡ 'The Celt, the Roman, and the Saxon,' p. 451 ; and *cf.*
Coote's 'The Romans of Britain,' p. 121 *et seq.* and *passim*.

the Watlings is forgotten'; and that 'each of the
streets represented a combination of those portions
of the Roman roads which the English adopted and
kept in repair as communications between their principal
cities.'* Watling Street was a zigzag route from Kent
to Chester and York, and thence northwards in two
branches to Carlisle and the neighbourhood of Newcastle.
It formed the line of division in Alfred's treaty with
Guthrum, and it may be pointed out that Roman roads
still very frequently form parish and county boundaries,
and thus sometimes assist us to trace the course of
otherwise obliterated roads. The Fosse Way, which met
Watling Street at High Cross in Leicestershire, can
be traced from *Stretton in the Fosse*, near Bath, to Ciren-
cester, and through *Stratton in the Vorse*, near Leaming-
ton, and *Stretton super Fosse* in Warwickshire to Lincoln;
while Ermin Street led direct from London to Lincoln,
with a branch to York and Doncaster, and the Ikenild
Street from Norwich to Dunstable, whence it eventually
ran to the coast at Southampton.† These four great
roads thus constitute a noteworthy link between the
Roman highway systems. They are specially mentioned ·
in the chapter on the *Pax Regis* in the laws of Edward
the Confessor, which were renewed by William the
Conqueror, and with the charter of Henry I. formed the
basis of Magna Charta, the 'Peace' on them and on
navigable rivers being protected by special fines, dis-
tinguishing it both from the 'Common law peace,' which
is also the King's peace, and that on other roads and
rivers, which was under the jurisdiction of the local

* 'Origins of English History,' p. 338 *et seq.*
† *Ibid.*, pp. 325, 326.

shire and sheriff courts.* In the Norman laws they are known as the *Quatuor Chemini*, and they long remained the most important feature of the mediæval road system, which, though imperfect in construction and badly maintained, continued gradually to increase in extent till the close of the sixteenth century.

After the Conquest an impetus was given to roadmaking by the erection of the great baronial castles —ninety-eight are known to have been in existence, south of and upon the Thames and the Bristol Avon alone, at the close of the twelfth century†—of new fortified towns, and of monasteries ;‡ and throughout the duration of the feudal system the existence of passable roads was necessary to all classes. ' The King himself with all his Court,' says M. Jusserand in his ' Wayfaring Life in the Middle Ages,'§ ' as well as the lords, ceaselessly went from one country-house to another by choice and still more by necessity. . . . In the same way the monks, those great cultivators, were interested in the good maintenance of the roads.' As is shown by the Royal Itineraries, King John rarely passed a month in the same place, and Edward I. in 1299 changed his abode seventy-five times, or on an average three times in a fortnight. The Courts of Justice were as peripatetic as the Sovereign, and while the Justices in Eyre, in accordance with Magna Charta, went on circuit four times in the year, the sheriffs and bailiffs

* Stubbs' ' Constitutional History,' vol. i., p. 210.

† ' Historic Highways and Byways of England,' p. 54.

‡ Many roads in Scotland were due directly or indirectly to the existence of monasteries (Cunningham's ' Growth of English Industry and Commerce,' p. 67).

§ Pp. 82-84.

had to visit the boroughs within their counties.   The
clergy—from the bishops and abbots, who were attended
by a great retinue, to the wandering friars, who lived
on charity—were as great travellers as the laity, who
made constant pilgrimages, such as that described by
Chaucer, to holy shrines.   Hospitality to travellers was
a religious duty with the monks, who, besides entertain-
ing those of rank in the monastery itself, had a guest-
house for pilgrims and travellers of low degree ; and it
was also exercised towards their equals, both as an act
of courtesy and for pleasure, by the great barons in
their castles.   The commerce of the country was largely
carried on at markets and at the great annual fairs, such
as that at Stourbridge, which was attended by foreign
merchants from all parts of the Continent ; and for
middle-class travellers, such as small landowners,
merchants, and packmen, etc., there were inns of every
degree, from the Tabard at Southwark, which Chaucer
describes as accommodating some thirty travellers and
their horses, down to the common ale-houses.*   And,
lastly, owing to the growth under the Plantagenets of
foreign trade, first initiated by the Danes, the seaport
towns began to increase in importance, and in the
seventh year of the reign of King John, as many as
nineteen between Newcastle and the Land's End—of
which London, Boston, and Southampton were the most
notable—are recorded as having contributed to the
fifteenth levied by him.†

    Except as regards the provision with respect to the

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* *Cf.* ' Wayfaring Life in the Middle Ages,' p. 95 *et seq.*
† Pearson's ' Historical Maps,' p. 41.

' King's Peace ' on the four great highways already
mentioned, the maintenance of public roads by the
State ceased on the close of the Roman occupation.
The principle of the Roman law under which the lesser
cross roads and country roads were placed under the
care of the rural authorities may, however, still be
traced in the English common law under which the duty
of keeping highways in repair was vested in the parishes
—unless by prescription this duty attached to townships
or districts, or owners of estates *ratione tenuræ**—and
also in the jurisdiction granted to Courts Leet, between
1066 and 1272, of dealing with nuisances arising from
the blocking of highways, the stopping of watercourses,
and the destruction of bridges.† Under the feudal
system, moreover, the repair of roads and of bridges
formed part of the threefold obligations imposed by the
trinoda necessitas, landed proprietors—including the
religious houses, which, as holding their land by tenure
of *frankalmoign*, had a dispensation from every other
form of service—being theoretically obliged to watch
over the good condition of the highways, while their
tenants had to execute the repairs on them. This duty
was regarded also as a pious and meritorious work
before God, analogous to visiting the sick or caring for
the poor ; for travellers were regared as unfortunates
deserving of pity, and their assistance a true charity,
and it was common for people to leave bequests in their
wills for this purpose. Though there is no evidence in
England of the existence of any religious Order resem-

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* Clifford's ' History of Private Bill Legislation,' vol. ii., p. 2.

† Cunningham's 'Growth of English Industry and Commerce,'
p. 214.

bling that of the Pontife Brothers, or bridge-builders,* founded in the twelfth century, which had establishments in several Continental countries, there were guilds or lay brotherhoods originating in the same religious motives—such as that of the Holy Cross at Birmingham, founded under Richard II., which, according to a return by commissioners of Edward II., maintained and kept in good repair ' two greate stone bridges and divers foule and dangerous highways,' of which the town itself was subsequently unable to undertake the care. The encouragement given by the Church to work of this description is also shown by the record of indulgences granted for its performance, as, for example, forty days' indulgence granted by the Bishop of Durham in 1311-1316 for help towards the bridge and highroad between Billingham and Nottingham, and a similar period to ' the faithful . . . who shall help by their charitable gifts or by their bodily labour in the building or in the maintenance of the causeway between Brotherton and Ferrybridge, where a great many people pass by.' The construction of the two bridges at Stratteford atte Bow by Queen Matilda was a ' meritorious work ' of this description ; and the pious character of bridges is also evidenced by the chapels that were erected upon them, such as those of St. Catherine on Bow Bridge, St. Thomas on London Bridge, and others at York, Bradford-on-Avon, St. Ives, and at Wakefield, where both the chapel and bridge—the finest existing examples of the kind—date from the thirteenth century.†

* 'The celebrated bridge over the Rhone at Avignon, four of the original arches of which still remain, was built by this Order.'—Jusserand.   † Cf. Jusserand, pp. 37-45, 48, 73.

Despite these theoretical safeguards, however, the maintenance of roads and bridges was practically dependent upon chance or necessity and the goodwill or devotion of adjoining landowners, and from the earliest times the aid of the Legislature was invoked in order to make new or repair old highways. One of the first entries on the Rolls of Parliament in 1278 allows the Abbot and men of Chester to cut and sell wood and make clearings between Hawarden and Montalt on condition of their making a road a league in length. In 1290 Walter Godluke, of Wallingford, asks for a license to take toll on carts conveying merchandise upon the road between Jowermarsh and Newenham for the repair of this road ; and in 1304 a road leading to Salisbury was placed under the control of the Bishop with a view to its more effectual repair.* We find Edward III. in 1353 issuing a patent ordering the repair of the highway (*alta via*) between Temple Bar, the western limit of London at that time, and Westminster. Beyond the towns the roads were devious, scattered with holes, and interrupted by brooks in winter, and their condition at their worst cannot be better illustrated than by an entry in the records of this King's second Parliament in 1359, stating that it was necessary to declare to the few representatives of the Lords and Commons who had been able to reach Westminster that 'because the prelates, earls, barons, and other lords and knights of the shire, citizens and burgesses of cities and boroughs, were so troubled by the bad weather that they could not

* Clifford's 'History of Private Bill Legislation,' vol. ii., pp. 3, 4.

arrive that day, it would be proper to await their coming.'*

Theoretically, too, there was ample provision for the safety of wayfarers, one of the first Acts relating to which is the Statute of Winchester 13 Ed. I. (1385), which, with a view to diminishing the number of robberies and murders perpetrated on travellers, provided that·'highways leading from one market town to another should be enlarged wherever bushes, woods, and dykes be, so that there be neither dyke, tree, nor bush whereby a man may lurk to do hurt within 200 feet on either side of the way.'† Under the old system of 'hue and cry,' which though obsolete in practice has never been actually abolished, the Sheriff and his officers had very wide powers of arrest, in the zealous exercise of which they not unfrequently arrested some honest traveller who had lost his way. As in the case of road maintenance, however, in spite of all legal provisions the highways were so infested with robbers that travelling alone was very hazardous, and merchants, who on this account generally journeyed in caravans well armed, were sometimes also attacked by armed knights and their retainers, who did not scruple to resist the Sheriff and his men if they attempted a rescue. The Sovereign and a few of the nobles possessed carriages, extremely clumsy and heavy in construction, but much ornamented in detail, and having the interior hung with tapestries and the seats furnished with cushions on which ladies might recline. These were, however, rarely used, except in state ceremonials, and were regarded as princely luxuries which were often bequeathed by will and cost enormous sums for

* Jusserand, p. 86.   † Clifford, vol. i., p. 6.

that period, £400 being paid for one destined for Queen
Isabella by Roger Rouland in the reign of Richard II.,
and £1,000 — the value in those days of a herd of
1,600 oxen—by John le Charer in Edward III.'s reign
for the carriage of that King's sister, the Lady Eleanor.*
It was not till 1580 that the first coach, properly so
called, known in England was brought from Germany
by Fitzallan, Earl of Arundel, and coaches did not
come into common use till about 1605.† Horse litters
were also not unknown in the Middle Ages; but all
people of any social standing travelled almost univer-
sally on horseback, ladies, who were as skilful riders as
the men, always riding astride. The number of carts—
which were simply massive boxes on two wheels—used
for agricultural purposes and the carriage of produce
was very large; and they were also employed to carry
luggage, large numbers being always requisitioned by
the official purveyors during the King's journeys. So
long as their baggage waggons could progress without
being too frequently upset, and their horses did not
stumble excessively, travellers were content with the
state of the roads, while the large number of those who
were obliged to travel on foot were too used to all kinds
of misery to complain of it.‡

Indifferent as was its condition when compared with
that of Roman Britain, the mediæval system of high-
ways, largely composed as it was of portions of the
practically indestructible Roman roads, sufficed for the
national requirements of the period. Its efficacy, how-

* Jusserand, p. 95 et seq.
† Beckmann's ' History of Inventions,' p. 96.
‡ Jusserand, pp. 82-84, 90, 91.

ever, began to be impaired by the large conversion of arable land into pasture, resulting partly from the growth of the wool trade, and partly from the scarcity of agricultural labour arising from the terrible visitation of the Black Death in 1345-49, which destroyed from one-third to one-half of the population, and caused a rise in wages of from 40 to 70 per cent., lasting from that date until 1500.* It also suffered still more from the break up of the old manorial system and the destruction of the feudal obligations which followed the Wars of the Roses, and the decay of fairs at this period is believed to be due to the bad state of the roads.† Lastly, in the sixteenth century it was still further injured by the decline and ultimate dissolution of the monasteries, which, as has been said, were much interested in the formation and maintenance of roads; and the late Professor Thorold Rogers has recorded the opinion that between 1583 and 1702, the middle of Elizabeth's reign and the commencement of Anne's, 'there is no reason to believe that, except near London, any attempt was made to construct new roads,' and that 'those in use had been probably traversed from very remote times.'‡ The inadequacy of the system of making parishes solely responsible for the maintenance of highways led to the passing in 1555 of the first Highway Act (2 and 3 P. and M., c. 8), which

* The value of artisan labour also rose from 50 to 90 per cent., and the wages of women were doubled.

† Cunningham's 'Growth of English Industry and Commerce,' pp. 450, 451.

‡ 'History of Agriculture and Prices in England,' vol. v., p. 756.

Holyhead carriages were generally taken to pieces at
Conway and carried by the Welsh peasantry to Holy-
head, and in 1685 a viceroy *en route* for Ireland spent
five hours in travelling fourteen miles.* In 1703 we
find Prince George of Denmark spending six hours in
going nine miles when visiting the great mansion
of Petworth ;† and Defoe, in his 'Tour through Great
Britain,' written in 1724, states that in a village near
Lewes he saw a lady of good quality drawn to church
in her coach by six oxen, 'the way being so stiff that
no horses could go in it.'‡ And these contemporary
records of the state of the roads are rendered more
striking by the great increase which had taken place in
vehicular traffic since the Restoration. Those who
enjoyed health and vigour and had not much luggage
still performed their journeys on horseback, but the
rich generally travelled in their own carriages drawn
by four horses, and at the close of Charles II.'s reign
'flying coaches '—the first of which, between the two
Universities and London, were started in 1699—ran
thrice a week from London to all the chief towns.
The crowd of passengers who were unable to afford
these modes of travelling had to be content with a
place in the stage waggons, in which all heavy articles
were conveyed on the best highways at about 1s. 3d. a
ton per mile, or one-third more than was afterwards
charged on turnpike roads, and fifteen times in excess of
railway rates. No stage coach or even stage waggon,
however, appears to have ever gone further north than

* Macaulay's 'History,' vol. i., pp. 374-376.
† *Ibid.*
‡ 'History of Private Bill Legislation,' vol. i., p. 243.

York or further west than Exeter; and throughout
the country beyond these limits and on all by-roads
goods were carried by teams of pack-horses of a
breed now extinct, which travelled at a foot's pace,
and between the packs of which travellers of humble
condition often found it convenient to perform a
journey.*

Under these conditions it is not surprising to find
that, though the unpopularity of turnpike roads—
which led to the well-known ' Rebecca riots'—was so
great that a general Act for their protection had to be
passed in 1728,† the number of Acts for their estab-
lishment continued to increase during the reigns
of Anne and the first two Georges. Between 1706
and 1744, 452 Acts were passed; 643 between 1785
and 1800; and 419 between 1800 and 1809; and when
the system was finally discontinued in 1835 the number
amounted to 3,800, authorizing the construction of
22,000 miles of road, the annual repair of which cost
£1,122,000. Owing, however, to their defective con-
struction even some of the earlier turnpike roads
earned maledictions from travellers like Arthur Young,
who, in his 'Six Months' Tour,' published in 1770,
cautions all travellers to avoid a certain Wigan turn-
pike 'as they would the devil.'‡ When the system was
first inaugurated eminent engineers considered road-
making as beneath their consideration, and it was
thought singular that one so distinguished as Smeaton
should have condescended to make the road across the

* Macaulay, pp. 377-380.
† 1 Geo. II., St. 12, c. 19.
‡ 'History of Private Bill Legislation,' vol. ii., pp. 16, 17.

Valley of the Trent between Markham and Newark. The making of new roads was thus left to any who chose to take up a trade in which special experience was considered unnecessary, and the first great English road-maker was a blind man—John Metcalf, popularly known as Blind Jack of Knaresborough, who, though possessing no experience of surveying or bridge-building, nevertheless constructed nearly 200 miles of excellent roads, the first of which was made between Harrogate and Boroughbridge in 1765.[*]   English road-making did not approach the Roman standard of excellence till the early part of the nineteenth century, when Telford, the great bridge-builder, began to devote his attention to it.   One of his earliest undertakings in this respect was the construction of 875 miles of road and 1,117 bridges in Scotland under a Parliamentary Commission of 1803.   But perhaps his best-known work was the reconstruction, under a similar Commission of 1815, of which Sir Henry Parnell was the leading spirit, of the Holyhead road to Ireland which a House of Commons Committee of 1830 described as ' affording an example of road-making on perfect principles and with complete success.'[†]   A system similar to that of Telford, though less thorough, was introduced into England by Macadam, the surveyor-general of the British roads, about the same time, and

[*] Smiles' ' Lives of the Engineers,' vol. i., p. 207.   An interesting account of Metcalf's remarkable career is given in cap. v., p. 208.

[†] ' History of Private Bill Legislation,' vol. ii., p. 17.   For an account of Telford's system of road-making, which it is interesting to compare with that of Vitruvius, see ' Lives of the Engineers,' vol. ii., pp. 429, 430.

successfully adopted on all the principal roads of the kingdom,* though Sir Henry Parnell in the first edition of his treatise, published in 1833, still laments the defects of some of them as compared with those in Ireland, which, thanks to the control of the grand juries, were everywhere in good condition.† As long as mail and stage coaches, post-chaises and private carriages, remained the only means of inland transit, the tolls, allowed under local Acts provided ample security for the turnpike loans raised by mortgage upon them ; but after the introduction of the railway system had begun to diminish traffic on the roads, continued legislation became necessary to supply deficits, and the difficulties of turnpike trustees formed the subject for consideration of a series of Parliamentary Committees between 1821 and 1853, and of a Royal Commission appointed in 1840. In addition to this, the abolition of forced labour on roads by the Highway Act of 1855, consolidating the law on the subject, deprived turnpike trustees of a source of revenue estimated by Sir James Macadam at £200,000 a year ; and in 1871 the system was condemned as wasteful and impolitic, and provision was made for their gradual abolition. On their discontinuance the whole expense of maintaining our highway system was transferred to the ratepayers, and their control is now vested by the Local Government Acts of 1888 and 1894 in the County and Rural District

* Macadam spent several thousand pounds out of his own pocket on road-making, which were eventually repaid to him by Parliament, together with an honorarium of £2,000 (' Lives of the Engineers,' vol. ii., p. 43).

† ' History of Private Bill Legislation,' vol. ii., p. 17.

Councils, and, where they elect to retain their jurisdiction over them, in urban authorities.*

It will be evident from this necessarily imperfect survey that the Roman highway system survived the neglect and mismanagement of over 1,000 years, and was only finally destroyed by the establishment of a new one adapted to modern requirements. That it was at least fully equal to that which has superseded it as regards material construction is evident from excavations such as those of Mr. McMurtrie on the Fosse Way, described in an earlier chapter ;† and it appears open to question whether the present system of delegating the management of highways to a number of local authorities is calculated to insure a higher standard of efficiency than was obtained under the Roman system of State control.‡ The fact that it has taken Britain, as an independent nation, 1,500 years to achieve the results produced by four centuries of Roman administration therefore seems to justify the conclusion that, had its authors possessed the advantages which we now enjoy from the discoveries of modern science, the civilization of Roman Britain—at all events as regards its material aspect—would have been fully equal to our own.

* 'History of Private Bill Legislation,' vol. ii., pp. 20, 23. *Cf.* Glen's ' Law relating to Highways,' p. 249 *et seq.*

† See cap. vii., p. 94 *ante.*

‡ A comparison of the roads of India and the Crown colonies, which are administered on the Roman system, with those of the United Kingdom, would show the superiority of the former in every respect. *Cf.*, too, p. x of the Report of the Departmental Committee of the Local Government Board on Highways, referred to in Preface.

CHAPTER XIV

THE IDENTIFICATION OF ROMAN ROADS

Sources of information available for identification of Roman
roads—Structures and characteristics—Milestones—Evi-
dences of centuriation—Coins, funeral monuments, and
altars, etc.—Proximity to camps and stations—Evidences as
to the existence of camps—The Fosse Way, Watling Street,
etc.—Contemporary authorities—The Geography of Ptolemy
—Richard of Cirencester's Itinerary—The Itinerary of
Antoninus—The 'Notitia Imperii'—The Peutingerian Table
—The Ravenna Chorography.

WE have now completed our survey of the origin,
history, and leading features of the Roman highway
system in Britain; but before finally taking leave of
the subject, it may be useful if we briefly enumerate,
for the benefit of the reader who may be desirous of
investigating it further, some of the principal sources
of information which, in addition to the list of authori-
ties appended to this work, are available for the identifi-
cation of a Roman road.

Of these, the first ,which naturally suggests itself is
the *structure* of the roads themselves.

Where excavations can be made, as in the case of the
Fosse Way, near Radstock, mentioned in a previous

chapter,* the series of strata of which it is composed furnish at once an infallible test for the identification of a Roman highway.   In addition to this, we have the straightness of the road, the prevalence of parallels and perpendiculars in its course, and its directness between the starting-point and terminus.†   Roman milestones found on or near the road supply another form of evidence,‡ while centurial stones, stone altars, and *botontini* furnish indications of the existence of *limites* or colonial roads, which can be still more fully identified by the discovery of a junction of four roads running towards the four cardinal points.§   Attention has also already been drawn to the frequent use of a Roman highway as a parish or county boundary, and to the assistance that those boundaries may give towards tracing a now wholly or partially obliterated road.‖   To these aids towards the identification of Roman roads must be added two more mentioned by Horsley. The first of these is the finding of coins and funeral monuments near the course of a road—a fact accounted for by the Roman custom of burying the dead near highways, which is frequently referred to in the works of Latin authors, and is further evidenced by the formal inscriptions on tombs addressed to travellers, such as ' Abi viator,' ' Sta viator,' etc.¶   The other is the existence

* See *ante*, p. 85 *et seq.*

† *Cf.* 'Britannia Romana,' pp. 390, 391.

‡ See *ante*, cap. viii.

§ See *ante*, p. 73 *et seq.*

‖ See p. 175, and *cf.* Codrington's 'Roman Roads in Britain,' pp. 37, 38.

¶ Virg., 'Ecl.,' ix. 60 ; Juv., 'Sat.,' 1 ; Propert., book ii., c. iii., p. 287. See Gough's 'Camden,' 2nd ed., vol. i., p. xcv ;

in the vicinity of a road of Roman camps and stations, which can be identified, first, by their names (the words 'Burgh,' 'Chester,' 'Street,' 'Cold Harbour,' and 'Stratton' being among the most common evidences of this kind); secondly, by the discovery of Roman monuments and the ruins of buildings; and thirdly, by their situation, both a commanding position on some eminence and also the neighbourhood of a river—and especially the *lingula*, or tongue of land made by the junction of a river with its tributary—being favourite sites with the Romans.*

Again, we have the important fact that archæologists have with more or less success traced the course of a number of roads, incidentally mentioned in the previous chapters, which are still commonly termed old Roman highways, such as the four great ways of the Fosse, Ermin Street, Watling Street, and Ikenild Street; the Akeman Street, the Ryknield Street, Stone Street, High Street, the Via Julia, the Portway, and the Maiden Way, etc. Though, however, there is little doubt that sections of these road swere originally the work of the Romans, it is important to bear in mind that, as already shown,† they were not designated by their present names till long after the Roman occupation, and that they therefore cannot be regarded

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and 'Britannia Romana,' p. 391. It is to be noted as to this, however, that, as pointed out by Stuart ('Caledonia Romana,' p. 268), this custom was not confined to the Romans, but was also practised by the Greeks, and introduced through them into Gaul and Britain.

* 'Britannia Romana,' p. 393.

† See *ante*, pp. 33, 34; and p. 173 *et seq.*

throughout their whole course as Roman roads. The actual line they traversed can only be determined by reference to the Itineraries, coupled with conclusive evidence of the kind already mentioned.

The third source of information to which we have referred is to be found in the comparison of the writings of the following contemporary authorities, most of which have been referred to in the preceding chapters—the Geography of Ptolemy, the Itinerary of Richard of Cirencester, the Itinerary of Antoninus, the 'Notitia Imperii,' the Peutingerian Table, and the Ravennas Chorography.

The Geography of Ptolemy, who lived during the reigns of Hadrian and Antoninus Pius, and apparently wrote about the year A.D. 120, gives a list of fifty-six of the most important cities in his day, twenty of which were in Scotland, and it is to be presumed that most of them must have been in existence for some time when his work was composed. The most northerly town mentioned in this list is Burghead (Ptoroton), on the Moray Firth; and it also includes old Aberdeen (Devana) and Bertha (Orrhea), at the mouth of the Tay on the east; Ardoch (Lindum), Dealgenross (Victoria), and Keirfield (Alauna) in the centre; and Paisley (Vanduara), Carstairs (Colania), and Stranraer (Retigonium) in the West of Scotland.

The Itinerary of Richard of Cirencester purports to have been composed from a map or itinerary of about A.D. 150, as the descriptions it contains appear to refer at the latest to the age of Marcus Aurelius (A.D. 160-180).* It comprises full accounts of the geography,

* See 'Caledonia Romana,' p. 177.

products, climate, and inhabitants of the British Isles, together with a summary of the chief transactions of the Roman occupation, and was alleged by Professor Bertrand, of Copenhagen, who first published a Latin edition of the MS. in 1767, to have been written in the fourteenth century by a Benedictine monk of Westminster, named from his birthplace Richard of Cirencester.* The seventh chapter gives the names of the thirty most notable Roman cities, followed by eighteen itinera, or journeys, in all directions across the island; and if we could assume it to be genuine, it would therefore be the oldest contemporary record of Roman roads in existence. Unfortunately, however, though it was accepted as such by Dr. Stukeley—who first made it known in Britain—and by Gibbon, Pinkerton, Chalmers, General Roy, and all the leading archæologists of the day, later authorities appear to have united in throwing doubts on its authenticity. The Historical Society has decided against it; Professor Hübner has condemned it; Mr. Elton and Mr. Burton both style it a 'forgery'; and Mr. Wright also concludes it to be a

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* For a full account of the work, see Roy's 'Military Antiquities of the Romans in Britain,' pp. 95-102. The Latin text of the work, together with a comparison of the Itineraries of Richard and Antoninus, will be found in Dyer's 'Vulgar Errors Ancient and Modern,' pp. 34, 230. *Cf.* Burton's 'History of Scotland,' vol. i., p. 13 notes, pp. 61-63; Wright's 'The Celt, the Roman, and the Saxon,' p. 145 note, and Appendix, pp. 533-536; and Elton, p. 336 note. See also Bertram's 'Tres Scriptores,' Stukeley's 'Memoir,' and Reynolds' 'Antonine'; a notice prefixed by the Historical Society to their edition of 'Richard of Devizes'; and, lastly, Professor Hübner's 'Inscriptiones Britanniæ Latinæ,' p. 206.

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' mere fabrication.' Mr. Burton, however, admits that
what the Itinerary professes to lay down on authority
' were the guesses and theories of a learned and acute
man,' while Mr. Wright allows that, though the
Itineraries of Richard and Antoninus differ a little
from each other, it is certain that nearly all the roads
given by the former which are not to be found in the
latter have been ascertained to exist. The author of
' Caledonia Romana ' also frequently refers to Richard's
Itinerary, and as it is the only guide of the kind avail-
able for Roman roads in Scotland, it cannot be dis-
carded in tracing their course ; while the comparison be-
tween it and that of Antoninus by Dyer in his ' Vulgar
Errors,' given in the Appendix, will also be found
useful with respect to roads south of Hadrian's Wall.

The Itinerary of Antoninus, the most authentic of
the records of our knowledge with respect to Roman
roads, is believed to have been compiled in the reign of
Constantine the Great, though there are great doubts
as to its exact date. The name of Antoninus has been
by some supposed to imply that it was the work of
Antoninus Pius and by others of Caracalla, and of
these two the latter seems to have by far the more
probable claims to the honour, since not one of the
stations in the Wall of Antoninus Pius—who, moreover,
never appears to have visited Britain—are named in the
list of places it contains, which would certainly have
been the case had the Itinerary been composed by him.
The fact, however, pointed out by Horsley, that Con-
stantinople and other places not founded till long after
the time of both these Emperors are mentioned in the
work, seems to dispose at once of the idea that it was

written by either of them.   It appears, therefore, far
more probable that, as both Horsley and Gale seem
disposed to believe, it was not all composed at any one
time or by one hand, but was begun in one age and
finished in another, and there seems little reason to
doubt that it assumed the form in which it has reached
us about the year A.D. 320.*   The Roman Itineraries
appear to have been military road-books, giving the
names of the stations and halting-posts on the principal
military ways, with the distances in Roman miles
between each, and to have been designed chiefly for
the use of officers during a campaign.   The portion
of the Itinerary of Antoninus which relates to Britain
gives fifteen different marching routes through the
island, extending from Middleby (Blatum Bulgium), in
Dumfriesshire, in the North, to Chichester (Regnum),
on the coast of Sussex, in the South, and from Caistor,
near Norwich (Venta Icenorum), on the East, to Exeter
(Isca Dumnoniorum) on the West, with the names
and relative distances from each other of 106 military
or posting stations.   It is thus manifestly incomplete
in its scope as a guide to the road system of the
whole of Britain ; and in addition to this, some of the

* 'Some have thrown out a conjecture that this work was
originally of so early a date as Julius Cæsar, and that it was
altered to our time with the enlargement of the Empire'
(Burton's 'History of Scotland,' vol. i., p. 60, note 1).   The
great Itineraries of the Roman Empire were published in 1735 by
Wesseling with annotations, 'Itineraria Veterum Romanorum,'
and later have been edited by Parthey et Pinder, Berlin, 1848.
Those relating to Britain have been annotated by Burton,
Gale, Stukeley, and Dr. Talbot in Leland's Itinerary, and by
Reynolds ; those for Gaul and Italy by M. D'Anville.

routes traverse portions of the same ground, sometimes
the name of a route given in the heading does not agree
with the items of the mileage, and in other parts the
miles appear to vary in length.   In spite of its defects,
however, it can never fail to be of immense assistance to
all who desire to acquaint themselves with the geography
of Roman Britain, since, to quote Horsley, ' we owe to
it more discoveries of the names of Roman places in
Britain than to all others put together.'*

The same uncertainty prevails to an even greater
extent with respect to the date of the fourth of the con-
temporary authorities we are considering—the ' Notitia
Imperii,' which is the latest record of the military
stations in Britain.   Horsley, relying on the authority
of the historian Pancirollus, who states that it must have
been written between the years 425 and 453, fixes it at
A.D. 445, and the following year as that of the final de-
parture of the Roman legions.†   Kemble‡ considers that
the theory of Pancirollus is successfully refuted by
Gibbon,§ who places it between A.D. 394 and 407 ; and
he adds that ' the actual document we possess may pro-
bably date from A.D. 390 or 400, but that it refers to the
arrangements of an earlier time, and to an organization
of Roman power in more palmy days of their dominion.'
Elton‖ speaks of it as composed about the end of the
fourth and Wright¶ about the beginning of the fifth

* ' Britannia Romana,' book iii., chap. iii., pp. 472-489.
† *Ibid.*
‡ ' The Anglo-Saxons in England,' p. 13, note 2.
§ ' Decline and Fall of the Roman Empire,' 2nd ed., vol. ii.,
pp. 45-48.
‖ ' Origins of English History,' p. 311, note.
¶ ' The Celt, the Roman, and the Saxon,' pp. 416, 418.

century.   It is evident, therefore, that the majority of
authorities are opposed to the late date fixed by
Horsley, though they are not agreed as to any precise
one.   On the whole, therefore, we seem justified in
assuming that the ' Notitia' was written either just
before or in the early part of the reign of Theo-
dosius II.   It may be described as an official calendar,
or perhaps return, of the civil and military establish-
ment of the Empire, and gives the staff employed in
the government of the provinces and the disposition of
the troops stationed in them.   The portion relating to
Britain apparently recognises its division into the five
provinces which have been noticed as established by
Constantine.   Of these, however, only two—Britannia
Prima and Valentia—appear to have been largely
garrisoned by troops,* and all the forty-six stations
enumerated are either on the East Coast—the Saxon
shore—or at Hadrian's Wall and the districts near it.†
Its chief use, therefore, in connection with highways is
that it helps us to identify most of the stations along
the line of Hadrian's barrier, together with a few in
Yorkshire and on the East and South Coasts, though it
defines the latter places very vaguely.‡

   The so-called Peutingerian Table, which may be
termed the oldest road-map of Britain, and of which

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   * ' Britannia Romana,' p. 480.

   † *Ibid.*, p. 475 ; *cf.* the ' Notitia Imperii,' caps. iii. and lxiii.
' The military force in Britain at the beginning of the fifth
century has been estimated from information contained in the
" Notitia " at 14,200 infantry and 1,700 cavalry' (' The Celt, the
Roman, and the Saxon,' p. 418).

   ‡ Pearson's ' Historical Maps,' p. 7.

we give an illustration below,* differs in some notable respects from an ordinary map. The Romans, accord-
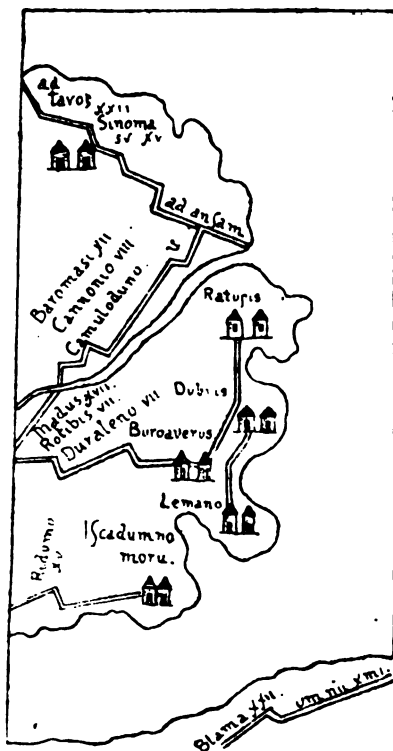
BRITAIN AS REPRESENTED IN THE PEUTINGERIAN TABLE.

* See 'Britannia Romana,' book iii., chap. v., pp. 505-520 : 'An Essay on Peutinger's Table so far as it Relates to Britain,' by Mr. Ward, where an excellent illustration will be found of the whole table, of which the British portion only is given in our text. A very clear description is also given in Elton's 'Origins of English History,' pp. 345, 346.

ing to Vegetius—who wrote a treatise, *de Re Militari*, about A.D. 386—had, in addition to Itineraries like that of Antoninus (*Itineraria adnotata*), post-maps (*Itineraria picta*) representing the countries adjacent to each other in the order in which they were traversed by the main military ways and by-roads, without reference to their form or latitude or longitude, and the chief object of which seems to have been to give a general panoramic view of the highways for military purposes. It is suggested by Mr. Ward* that the *Itineraria adnotata* were not improbably made afterwards from the *Itineraria picta*, and that the Itinerary of Antoninus was perhaps made from a post-map of this kind, which therefore might possibly be the one of which a copy has been given above. The Peutingerian Tables derive their name from the fact that they were found in the library of Conrad Peutinger, of Augsburg, at his death in 1547, and appear to have consisted of twelve folio sheets of parchment, originally forming one long strip 22 feet in length and 1 foot in breath, so as to admit of its being rolled on a stick. It is believed to have been copied in the thirteenth century from a drawing originally made either in the third century, in the time of Alexander Severus or, according to others, a century later in the age of Theodosius the Great, and is said to have been brought to Europe from a monastery in the Latin kingdom of Jerusalem. A portion of the first segment, which gives the diagram of Britain, has been destroyed, owing probably to its having formed the outside sheet of the roll, and that which remains consists, as will be seen, only of the

* 'Britannia Romana,' p. 507.

principal part of the district known as the Saxon shore.
This fragment, however, is sufficient to show that the
map was made entirely for military purposes, and was
constructed so as to give prominence to the roads and
principal stations.

The last work on our list, which is generally known
as the 'Chorography of the Anonymous Ravennas,'*
though of little value for our purpose, demands a pass-
ing notice. Salmon ascribed the authorship to Gallio
of Ravenna, the last Roman who had a command in
Britain, and Dr. Stukeley to a writer who took the name
from Ravenna on account of his being born in the
town. Neither of these theories, however, has found
any large acceptance, and the author is now, therefore,
generally styled 'anonymous,' while the date of his
treatise, which seems also to be a matter of some
uncertainty, appears to be probably the seventh
century. Mr. Pearson† considers that 'he must have
commanded special information from Celtic sources,
and most likely from the Gaelic or Irish missionaries,'
and Mr. Wright 'that he had evidently before him
large maps, from which he derived his lists of towns and
rivers.'‡ Though, however, his work gives full records
as to the towns and geographical features of which he
treats, they appear to be stated without method; and as

* See 'Britannia Romana,' book iii., chap. iv., pp. 489-505:
'An Essay on the Chorography of Britain, the Anonymous
Geographer of Ravenna.' See, too, 'The Celt, the Roman, and
the Saxon,' p. 145 note; Appendix, pp. 536, 537-540; and
Pearson's 'Historical Maps,' Essay I., p. 7.
    † 'Historical Maps,' Essay I., p. 7.
    ‡ 'The Celt, the Roman, and the Saxon,' p. 536.

he pays no regard to the Itineraries, and as his names are written so corruptly and so mingled with Gallic roots as to make it impossible to identify them satisfactorily, he can prove of but little assistance as respects Roman highways.

The text of the Itinerary of Antoninus, so far as it relates to Britain, extracted from the edition by Parthey and Pinder, is given at the end of this chapter. It is the oldest known road-book of these islands, and thus furnishes the most appropriate conclusion of the history of the system to which it relates.

The text of the other authorities above mentioned, with the exception of that of the Ravenna Chorography, will be found in the Appendices to this work, together with a list of the Roman towns and the principal camps in various counties of the United Kingdom; and it is hoped that the information they contain will prove serviceable to travellers on our highways as well as to those who may be disposed to undertake the verification of the sites of some of the numerous stations and portions of road which are still uncertain or in some cases altogether unknown.   No branch of archæology owes more to the labours of independent investigators co-operating for a common object than that relating to the Roman occupation, and if the perusal of the foregoing pages should have the effect of in any way increasing the number of those taking an active interest in such investigations, one of the main purposes of their publication will have been achieved.

THE ITINERARY OF ANTONINUS SO FAR AS IT RELATES TO BRITAIN.*

LATIN NAMES OF STATIONS.	ENGLISH NAMES OF STATIONS
ANTONINI ITER BRITANNIARUM.	ANTONINE'S ITINERARY OF BRITAIN.
A Gessoriaco de Galliis Ritupis in Portu Britanniarum, Stad. numero ccccl.	From Boulogne in France to Richborough in England.
	First Journey.
A limite, i.e., a vallo Prætorio usque, m. pm. clvi.	From the Wall (Hadrian's Wall) to Flamborough Head.
A Bramenio Corstopitum, m. pm. xx.	From Roechester to Corbridge† (Northumberland)
Vindomora, m. pm. ix.	Ebchester (Northumberland border)
Vinovia, m. pm. xix.	Binchester, near Bishop Auckland (Durham)

* From the edition by Parthey and Pinder (1848). *Cf.* Dr. Gale's edition of 'Antonine's Itinerary,' with Horsley's Essay on it and Leman's MS. notes, in the edition of 'Britannia Romana' in the Bath Literary and Scientific Institution (see pp. 378-472). *Cf.*, too, the edition in vol. iii. of Hearne's 'Leland's Itinerary' (second edition), with Dr. Robert Talbot's Annotations (see p. 127 *et seq*). On account of the differences of opinion, still not satisfactorily settled, regarding the relative distances of the English and Roman miles, no attempt has been made to give the equivalents for the Roman figures indicative of the distance between station and station in the text.

† It will be seen from the map that Roechester (Bremmenium) is beyond the Wall, and this, combined with the expression *a limite*, seems to show that the composer of the Itinerary regarded the barrier of Hadrian as the northern boundary of the road system he is describing. Corbridge (Corstopitum) again is beyond it, so that the title 'from the Wall' evidently means the district in the neighbourhood of the Wall.

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LATIN NAMES OF STATIONS.	ENGLISH NAMES OF STATIONS.
Cataractoni, m. pm. xxii.	Cattarick on the Swale (Yorkshire)
Isurium, m. pm. xxiv.	Aldborough (Yorkshire, East Riding)
Eburacum, Leg. VI., Victrix, m. pm. xvii.	York (Headquarters of the VIth Legion)
Derventione, m. pm. vii.	Station on the Derwent (perhaps Old Malton, Yorkshire)
Delgovicia, m. pm. xiii.	Station near Millington (Yorkshire)
Prætorio, m. pm. xxv.	Flamborough Head (Yorkshire, East Riding)

Second Journey.

Item : A vallo ad Portum Ritupis, m. pm. cccclxxxi., sic.	From the Wall to Richborough in Kent.
A Blato Bulgio Castra Exploratorum, m. pm. xii.	From Middleby (Dumfriesshire) to Netherby (Cumberland)
Luguvallo, m. pm. xii.	Carlisle*
Voreda, m. pm. xiv.	Probably Old Penrith (Cumberland)
Brovanacis, m. pm. xiii.	Kirkby Thore (Westmoreland)
Verteris, m. pm. xiii.	Brough (Westmoreland)
Lavatris, m. pm. xiv.	Bowes (Yorkshire, North Riding)
Cataractone, m. pm. xvi.	Cattarick on the Swale (Yorkshire, North Riding)
Isurium, m. pm. xxiv.	Aldborough (Yorkshire, East Riding)
Eburacum, m. pm. xvii.	York
Calcaria, m. pm. ix.	Tadcaster (Yorkshire)
Camboduno, m. pm. xx.	Slack (Yorkshire)
Mamucio, m. pm. xviii.	Manchester
Condate, m. pm. xviii.	Kinderton (Cheshire) or, perhaps, near Northwich
Deva, Leg. XX., Victrix, m. pm. xx.	Chester (headquarters of the XXth Legion)
Bovio, m. pm. x.	Bangor (Flintshire) or near Stretton
Mediolano,† m. pm. xx.	Station on the Tanad (perhaps Meivod Montgomeryshire)

* In this Iter again neither Middleby nor Netherby are on the wall though Carlisle is.

† Horsley places Mediolanum at Drayton in Shropshire (see pp. 417, 418 of ' Britannia Romana').

LATIN NAMES OF STATIONS.	ENGLISH NAMES OF STATIONS.
Rutunio, m. pm. xii.	Rowton (Shropshire)
Uriconio, m. pm. xi.	Wroxeter
Uxacono, m. pm. xi	Red Hill, near Shifnal (Salop), or Oakengate, near Wembridge, Salop
Pennacrucio, m. pm. xii.	Station near the river Pente, perhaps Stretton (Staffordshire)
Etoceto, m. pm. xii.	Wall (Staffordshire)
Manduessedo, m. pm. xvi.	Manceter (Warwickshire)
Venonis, m. pm. xii.	Probably High Cross (Leicestershire)
Bannaventa, m. pm. xvii.	Near Daventry (perhaps Burrow Hill Northants*)
Lactodoro, m. pm. xii.	Towcester (Northamptonshire)
Magiovinto, m. pm. xvii.	Near Fenny Stratford (Bucks)
Durocobrivis, m. pm. xii.	Dunstable (Bedfordshire)
Verolamio, m. pm. xii.	St. Albans (Hertfordshire)
Sulloniacis, m. pm. ix.	Brockley Hill, near Elstree (Herts)
Londinio, m. pm. xii.	London
Noviomago, m. pm. x.	Holmwood Hill, Bromley (Kent), or near Croydon (Surrey)
Vagniacis, m. pm. xviii.	Perhaps South Fleet or North Fleet (Kent)
Durobrivis, m. pm. ix.	Rochester
Durolevo, m. pm. xiii.	Davington or Milton (Kent)
Duroverno, m. pm. xii.	Canterbury
Ad Portum Ritupis, m. pm. xii.	Richborough (Kent)

Third Journey.

Item : A Londinio ad Portum Dubris, m. pm. lxvi., *sic*	From London to Dover.
Durobivis, m. pm. xxvii.	Rochester ⎫
Duroverno, m. pm. xxv.	Canterbury ⎬ Kent
Ad Portum Dubris, m. pm. xiv.	Dover ⎭

* The Isannavaria (see Iter 6) or Isannavatia and the Bennavenna or Bannaventa in this Iter (Iter 2) would seem to have been two different names for the same town, the site of which must have been at or near Daventry. Some authorities, however, consider them to be two distinct places, and find the site of the first at Burnt Walls, and the second at Burrow Hill, both near Daventry.

LATIN NAMES OF STATIONS.	ENGLISH NAMES OF STATIONS.
	Fourth Journey.
Item : A Londinio ad Portum Lemanis, m. pm. lxviii., *sic.*	From London to Lympne.
Durobivis, m. pm. xxvii.	Rochester ⎫
Duroverno, m. pm. xxv.	Canterbury ⎬ Kent
Ad Portum Lemanis, m. pm. xvi.	Lympne ⎭
	Fifth Journey.
Item : A Londinio Luguvalio ad Vallum, m. pm. ccccxliii., *sic.*	From London to Carlisle and the Wall.
Cæsaromago, m. pm. xxviii.	Chelmsford (Essex)
Colonia, m. pm. xxiv.	Colchester
Villa Faustina, m. pm. xxxv.	Perhaps Dunmow (Essex)
Icinos, m. pm. xviii.	Perhaps Icklingham (Suffolk), but more probably Chesterford (Essex)
Camborico, m. pm. xxxv.	Cambridge
Duroliponto, m. pm. xxv.	Godmancheter (Huntingdon)
Durobrivas, m. pm. xxxv.	Castor on the Nen (Northampton)
Causennis, m. pm. xxx.	Ancaster (Lincolnshire)
Lindo, m. pm. xxvi.	Lincoln
Segeloci, m. pm. xiv.	Littleborough (Nottingham-shire)
Dano, m. pm. xxi.	Doncaster (Yorkshire)
Legiolio, m. pm. xvi.	Castleford (Yorkshire, West Riding)
Eburaco, m. pm. xxi.	York
Isubrigantum, m. pm. xvii.	(Isurium) Aldborough (Yorkshire, West Riding)
Cataractone, m. pm. xxiv.	Cattarick on the Swale (Yorkshire, North Riding)
Levatris, m. pm. xviii.	Bowes (Yorkshire)
Verteris, m. pm. xiiii.	Brough (Westmoreland)
Brocavo, m. pm. xx.	Kirkby Thore (Westmoreland)
Luguvallio, m. pm. xxii.	Carlisle (Cumberland)
	Sixth Journey.
Item: A Londinio Lindo, m. pm. clvi., *sic.*	From London to Lincoln.
Verolamio, m. pm. xxi.	St. Albans (Hertfordshire)
Durocobrivis, m. pm. xii.	Dunstable (Bedfordshire)
Magiovinio, m. pm. xii.	Near Fenny Stratford (Buckinghamshire)

Latin Names of Stations.	English Names of Stations.
Lactorodo, m. pm. xvi.	Towcester (Northamptonshire)
Isanavantia, m. pm. xii.	(Apparently another name for Bennavena in Iter 2). Near Daventry (Northamptonshire)
Tripontio, m. pm. xii.	Lilbourne, near Rugby (Northamptonshire)
Venonis, m. pm. viii.	High Cross (Leicester)
Ratis, m. pm. xii.	Leicester
Verometo, m. pm. xiii.	Willoughby (Nottinghamshire)
Margiduno, m. pm. xii.	Near Bridgeford - on - Trent (Nottinghamshire)
Ad Pontem, m. pm. vii.	Near Farndon, Newark (Nottinghamshire)
Crocolana, m. pm. vii.	Brough (Lincolnshire)
Lindo, m. pm. xii.	Lincoln

Seventh Journey.

	From Chichester to London.
Item : A Regno Londinio, m. pm. xcvi., *sic*.	
Clausentum, m. pm. xx.	Bittern, near Southampton (Hants)
Venta Belgarum, m. pm. x.	Winchester (Hants)
Calleva Attrebatum, m. pm. xxii.	Silchester (Hants or borders of Berks)
Pontibus, m. pm. xxii.	Staines (Middlesex)
Londinio, m. pm. xxii.	London

Eighth Journey.

	From York to London.
Item : Ab Eburaco, Londinio, m. pm. ccxxvii., *sic*.	
Lagecio, m. pm. xxi.	Castleford (Yorkshire, West Riding)
Dano, m. pm. xvi.	Doncaster
Ægeloco, m. pm. xxi.	Littleborough (Nottinghamshire)
Lindo, m. pm. xiv.	Lincoln
Crocolana, m. pm. xiv.	Brough (Lincolnshire)
Margiduno, m. pm. xiv.	Near Bridgeford - on - Trent (Notts)
Vernemeto, m. pm. xii.	Willoughby (Notts)
Ratis, m. pm. xii.	Leicester
Venonis, m. pm. xii.	High Cross (Leicestershire)
Bannavento, m. pm. xviii.	Near Daventry (Northamptonshire)

Latin Names of Stations.	English Names of Stations.
Magiovinio, m. pm. xxviii.	Near Fenny Stratford (Bucks)
Durocobrivis, m. pm. xii.	Dunstable (Bedfordshire)
Verolamio, m. pm. xii.	St. Albans (Hertfordshire)
Londinio, m. pm. xxi.	London

Ninth Journey.

Item : A Venta Icenorum Londinio, m. pm. cxxviii., *sic.*	From Caistor, in Norfolk, to London.*
Sitomago, m. pm. xxxii.	Dunwich (in Suffolk), or Woolpit, near Stowmarket (Suffolk
Combretonio, m. pm. xxii.	Burgh, near Woodbridge (Suffolk), or Stretford, near Saxmundham (Suffolk)
Ad Ansam, m. pm. xv.	Stratford, near Ipswich (Suffolk), or a station on the Stour on the Essex border
Camoloduno, m. pm. vi.	Colchester (Essex)
Canonio, m. pm. ix.	Near Kelvedon, on the Pant (Essex)
Cæsaromago, m. pm. xii.	Chelmsford (Essex)
Durolito, m. pm. xvi.	Near Romford (Essex) or Leyton (Essex)
Londinio, m. pm. xv.	London

Tenth Journey.

Item : A Clanoventa Mediolano, m. pm. cl., *sic.*	From (probably) Ellenborough (Cumberland) or (perhaps) Lanchester (Durham) to a station on the Tanad River, or (perhaps) Meivod in Montgomeryshire. †
Galava, m. pm. xviii.	Keswick (Cumberland)‡
Alone, m. pm. xii.	Ambleside (Westmoreland)§
Calacum, m. pm. xix.	Probably Kendal‖
Bremetonaci, m. pm. xxvii.	Overborough (Lancashire)
Coccio, m. pm. xx.	Ribchester or Wigan (Lancashire)
Mancunio, m. pm. xvii.	Manchester

* Wright says : 'The course of this road is, however, at present very uncertain, and we only know that it ended at the Eastern Venta, or Venta of the Iceni, which, there seems no reason to doubt, stood at Caistor, near Norwich ' (' The Celt, the Roman, and the Saxon,' p. 160).
† Horsley places Mediolanum at Drayton in Shropshire. *Cf.* Iter II.
‡ Placed by Horsley at Old Town.
§ Placed by some at Whitley Castle.
‖ Placed by some at Appleby.

Latin Names of Stations.	English Names of Stations.
Condate, m. pm. xviii	Kinderton (Cheshire), or, perhaps, near Northwich, Cheshire
Mediolano, m. pm. xix.	Station on the Tanad (Montgomeryshire)

Eleventh Journey.

	From Caernarvon (North Wales) to Chester.
Item : A Segontio Devam, m. pm. lxxiiii., *sic.*	
Conovio, m. pm. xxiv.	Caer-Hun in the Vale of the Conway (Caernarvonshire)
Varis, m. pm. xviii.	Bodfari, near Denbigh (Flint and Denbigh)
Deva, m. pm. xxxii.	Chester

Twelfth Journey.[*]

Item : A Muriduno Viroconium, m. pm. clxxxvi., *sic.*	From Caermarthen to Wroxeter (Shropshire).
Leucaro, m. pm. xv.	Exeter
Nido, m. pm. xv.	Lloughor or Llygor (Glamorganshire)
Bomio, m. pm. xv.	Neath (Glamorganshire)
Iscaleg, ii. Augusti, m. pm. xxvii.	Ewenny (Glamorganshire)
Burrio, m. pm. ix.	Usk (Monmouthshire)
Gobannio, m. pm. xii.	Abergavenny(Monmouthshire)
Magnis, m. pm. xxii.	Kenchester (Herefordshire)
Bravonio, m. pm. xxiv.	Near Leintwardine, near Ludlow (Herefordshire)
Viroconio, m. pm. xxvii.	Wroxeter (Shropshire)

Thirteenth Journey.

Item : Ab Isca Callevam, m. pm. cix., *sic.*	From Caerleon (Monmouthshire) to Silchester (Hants).
Burrio, m. pm. ix.	Usk (Monmouthshire)
Blestio, m. pm. xi.	Monmouth

[*] In Dr. Gale's edition (reproduced in Horsley's ' Britannia Romana,' p. 380 *et seq.*) the following six stations are given as preceding Muridunum : Vindomi, m. pm. xv. ; Venta Belgarum, m. pm. xxi. ; Brige, m. pm. xi. ; Sorvioduni, m. pm. viii. ; Vindogladia, m. pm. xii. ; Durnovaria, m. pm. viii. Messrs. Parthey and Pinder, however, insert all these stations in brackets, as being evidently a misplaced entry repeating Iter XV. See as to this Leman's MS. notes on the edition of ' Britannia Romana ' in the Library of the Bath Literary and Scientific Institution, pp. 381 and 457.

Latin Names of Stations.	English Names of Stations.
Ariconio, m. pm. xi.	Near Ross (Herefordshire)
Glevo, m. pm. xv.	Gloucester
Durocornovio, m. pm. xiv.	Cirencester (Gloucestershire)
Spinis, m. pm. xv.	Speen, or Spene, near Newbury (Berks)
Calleva, m. pm. xv.	Silchester (Hampshire)

Fourteenth Journey.

Item : Alio Itinere ab Isca Calleva, m. pm. ciii., *sic.*	From Caerleon to Silchester by another route.
Venta Silurum, m. pm. ix.	Caerwent (Monmouthshire)
Abone, m. pm. xiv.	Aust, near Thornbury (Gloucestershire), where there was a passage over the Severn
Trajectus, m. pm. ix.*	Bitton (Gloucestershire)

* Leman suggests (p. 382) that Abone and Trajectus should be transposed, and makes Abone Bitton, and Trajectus Sea Mills. He also seems to incline to the idea that a station called Ad Sabrinam, which, as will be seen, is given by Richard in his corresponding iter of this portion of the country, has been omitted from the Itinerary of Antoninus. He thus makes the road run from Caerwent to Caldecot Pill, and there cross the Severn to Madam Farm (Ad Sabrinam), three miles from Sea Mills (Trajectus), and then on to Bitton (Abone), and thence to Bath (see 'Britannia Romana,' p. 469). If he is correct it would seem that Sea Mills must have been the port of crossing (Trajectus), not the Severn, but the Avon, and thus formed the communication with Roman stations on the south side of that river, extending through Somerset on into Devon. In the text it will be seen that we have not adopted Leman's theory as to the transposition of Abone and Trajectus, and have differed from him in placing Trajectus at Bitton. See an article in vol. xxix. of *Archæologia* (pp. 5-31) by Mr. Ormerod, D.C.L., on 'Some Ancient Remains existing in the District adjacent to the confluence of the Wye and the Severn in the Counties of Gloucester and Monmouth, etc.,' and also a subsequent paper on 'British and Roman Remains illustrating the Communications with Venta Silurum and the Passages of the Bristol Channel and Antoninus's Itinerary,' which was read before the Archæological Institute at the Bristol meeting in 1851. The reader will find all the various opinions on this much-disputed point of the crossing of the Severn fully discussed in these able papers. Mr. Ormerod points out that there are no less than twenty different theories broached by antiquarians on the subject, Camden, Gale, and others making the crossing of the river take place from a point above Aust, Horsley and others from Aust itself, and Coxe and others from Madam's Pill on the Severn, north-west of King's Weston ; while Burritt, the historian of Bristol, doubts between Sea Mills and Portishead, at the mouth of the Avon, in his identification of the *Abone* of Antoninus. It may be added

Latin Names of Stations.	English Names of Stations.
Aquæ Solis, m. pm. vi.	Bath
Verlucioue, m. pm. xv.	Highfield in Sandy Lane, near Heddington (Wilts)
Cunetione, m. pm. xx.	Folly Farm, near Marlborough (Wilts)
Spinis, m. pm. xv.	Speen, near Newbury (Berkshire)
Calleva, m. pm. xv.	Silchester (Hants)
	Fifteenth Journey. *
Item : A Calleva Isca Dumnuni- orum, m. pm. cxxxvi., *sic*.	From Silchester to Exeter.
Vindomi, m. pm. xv.	Near Finkley, between Andover and St. Mary Bourne (Hampshire)
Venta Belgarum, m. pm. xxi.	Winchester (Hants)
Brige, m. pm. xi.	Broughton (Hants)
Sorbiodoni, m. pm. viii.	Salisbury (Old Sarum, Wilts)
Vindogladia, m. pm. xii.	Blandford (Dorsetshire) or Cranbourne (Dorsetshire)
Durnonovaria, m. pm. viii.	Dorchester (Dorset)
Muriduno, m. pm. xxxvi.	Honiton (Devon) or Seaton (Devon)
Isca Dumnuniorum, m. pm. xv.	Exeter

that he states that numerous pilots whom he consulted expressed the opinion 'that a passage from Madam's Pill to Caldecot could only take place once in each tide, and that from its exposure in stormy weather would render it impracticable, and that a passage from Sea Mills by the Avon would have great additional difficulties from meeting another tide.' Finally, it is to be noted that the subject is further complicated by the fact that the continuation of the line of this iter from beyond Bitton and St. George's to Durdham Down west of Bristol is still only conjectural.

* *Cf.* note on Iter XII., p. 210.

APPENDIX 1

PTOLEMY'S GEOGRAPHY,* Bk. II., Ch. III., Table III.

| | LATIN NAMES. | | ENGLISH NAMES. | |
TRIBAL DISTRICTS.	TOWNS.	DISTRICTS.	TOWNS.
Novantæ	Lucopibia	Wigtonshire	Withern
	Retigonium	and Ayrshire	Stranraer
Selgovæ	Carbantorigum	Dumfries and	Kircudbright
	Uxelum	Kirkcud-	Raeburnfoot
	Corda	bright	Cumnock in Esk-dale
	Trimontium		Eildon
Damnii	Colania	Renfrew, Lan-	(Probably) Lanark
	Vanduara	ark, and Lin-	Paisley
	Coria	lithgow	Crawford or Car-stairs
	Alauna		Keirfield
	Lindum		Ardoch
	Victoria		Dealgenross
Otadeni	Curia	Selkirk, Rox-burgh, and	Currie on Gore Water
	Bremenium	Northumber-land	Rochester
Vacomagi	Banatia	Inverness, Nairn, Ross,	Bona, near Inver-ness
	Tamea	and (probably) part of Perth-	(Probably)on Loch Tay
	Alata Castra	shire	Tain, Nr. Gordon Castle
	Tuesis		Nr. Fochabers
Veniocontes	Orrea	Districts beyond the Tay	Bertha, near the Almond

* For the Greek Text of this portion of Ptolemy's Geography, see 'Britannia Romana,' pp. 857-860.

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LATIN NAMES.		ENGLISH NAMES.	
TRIBAL DISTRICTS.	TOWNS.	DISTRICTS.	TOWNS.
Texali	Devana	Beyond the Venicontes on the coast	Old Aberdeen
Brigantes	Epiacum	York, Durham, Lancaster, Westmore-land, and Cumberland	Near Lanchester
	Vinnovium		Binchester, near Bishop Auckland
	Caturractonium		Cattarick
	Calatum (probably Galacum)		(Probably) Kendal
	Isurium		Aldborough
	Rigodunum		(Probably) War-rington
	Olicana		Ilkley on the Wharfe
	Eboracum: Legio Sexta Victrix		York
	Camunlodunum		Slack
Parisi	Petuaria	A tribe to the south of the Brigantes	Brough on the Humber
Ordovices	Mediolanium	North Wales	(Probably) Meivod in Montgomery or a station on the Tanad River
	Brannogenium		(Probably) Ludlow or Worcester
Cornabii	Deuna (probably Deva)	Warwick, Worcester, part of Stafford, Shropshire, and Cheshire	Chester
	Legio Vicessima Victrix		
	Viroconium (Uriconium)		Wroxeter
Coritani	Lindum	Leicester, Rutland, Lincoln, Notts, Derby, and Staffordshire	Lincoln
	Rhage		Leicester
Catyeuchlani	Salenæ	Herts, Beds, Northants, and Buckinghamshire	(Probably) Sandye, near Potton, in Beds
	Urolanium (Verulam)		St. Albans
Simeni (or Iceni)	Venta	Norfolk, Suffolk, Cambridge, and Huntingdon	Caistor, near Norwich
Trinoantes	Camudolanum	Essex and Middlesex	Colchester

LATIN NAMES.		ENGLISH NAMES.	
TRIBAL DISTRICTS.	TOWNS.	DISTRICTS.	TOWNS.
Demetæ	Luentinum	Cardigan, Pembroke, Caermarthenshire	Llanio in Cardiganshire
	Maridunum		Caermarthen
Silyres	Bullæum (probably Burrium)	South Wales	(Probably) Usk
Dobuni	Corinium	Oxfordshire and Gloucestershire	Cirencester
Atrebatii	Nalcua or Calcua (probably Caleva)	Berks, and part of Oxford	(Probably) Silchester
Cantii	Londinium	Kent	London
	Darvenum (probably Darovenum)		(Probably) Canterbury
	Rutupiæ		Richborough
Regni	Neomagus (probably Noviomagus)	Surrey, Sussex, and part of Hants	(Probably) Holmwood Hill, near Bromley, Kent
Belgæ	Ischalis	Wilts, Somerset, and part of Hants	Ilchester
	Aquæ Calidæ		Bath
	Venta (Venta Belgarum)		Winchester
Durotriges	Dunium (probably Muridunum)	Dorsetshire	(Probably) Honiton* or Seaton in Devon
Dumnonii	Voliba*	Devon and Cornwall	(Perhaps) Falmouth
	Uxela		(Probably) Lostwithiel
	Tamare		(Perhaps) Tamerton near Plymouth
	Isca : Legio Secunda Augusta		Exeter

* The stations of Voliba, Uxela, and Tamare are very uncertain.

APPENDIX II.

THE DIAPHRAGMATA OF RICHARD OF CIREN-CESTER COMPARED WITH THE ITINERARY OF ANTONINUS.*

* Dyer gives the whole Latin text of Richard's Chorography in his work (see p. 184 *et seq.*). The Diaphragmata will be found at pp. 211-214, at the end of Cap. VII. of Dyer's 'Vulgar Errors, Ancient and Modern.' See, too, pp. 34-178. 'Diaphragmata' is the plural of diaphragma, which literally means the diaphragm, or midriff, of the body, to which Richard apparently compares the roads he describes. Both this term and also the reference to the Watling Street—a mediæval term—must, if we assume the work to be genuine, be presumably considered as additions of the Benedictine monk of the fourteenth century to the old manuscript of the age of Marcus Aurelius, which he is supposed to have edited. Otherwise, they would seem to be evidence pointing to its forgery. The edition of Antoninus's Itinerary used by Dyer is that of T. Reynolds, published at Cambridge, 1799.

† Caer Seyont or Seiont (Segontium) is said by Wright to have been one of the most important Roman towns in Wales ('The Celt, the Roman, and the Saxon,' p. 150), and must evidently have been one of the ports of embarkation for Ireland. This first iter of Richard's,

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Durosevo, 12	Durolevo, 12	Davington or Milton
Duroprovis, 25 Deinde, m.p., 27	Durobrovis, 16	Rochester
Transis Thames in intrasque provinciam Flaviam et civitatem Londinium Augustam. . . .	Iter 3 inverted from Durobrivis to Londinium, 27 (Iter 2, inverted)	Here the route crosses the Thames into the Province of Flavia Cæsariensea and proceeds to London.
Sulo Mago, m.p. 9	Sulloniacis, 12	Brockley Hills, near Elstree (Herts)
Verulamio Municipio, 12	Verolamio, 9	St. Albans (Hertfordshire)
Foro Dianæ, 12	Durocobrivis, 12	Dunstable (Bedfordshire)
Magio Vinio, 12	Magiovinto, 12	Near Fenny Stratford (Bucks)
Lactodoro, 12	Lactodoro, 17	Towcester (Northamptonshire)
Isanta Varia, 12	Bennavenna (Iter 6), Isanavatia, 12	Near Daventry (Northamptonshire)
Tripontio, 12	Tripontio, 12	Lilbourne, near Rugby (Northamptonshire)

therefore, begins at Richborough, the port at which the Romans usually landed in Britain from the Continent, and traverses the island from the south-eastern extremity to the north-western corner of Wales, where it ends in another important port, while it passes through the important towns of Canterbury and Rochester, the commercial city of London, the municipal city of St. Albans, the colony of Chester, and the important town of Wroxeter. It must be added that Richard, like Antoninus, prefaces his first Itinerary by giving the distance between Richborough and Boulogne, which he states to be cccccl. stadia, the number given by Antoninus (see first iter, *ante*, p. 204), or, ' as some have it, 46,000 passus.' The passage which is the opening sentence of the Diaphragmata is as follows : ' Rhutupis prima in Brittania insula civitas versus Galliam apud Cantios sita a Gessoriago Bounoniæ portu, unde commodissimus in supradictam insulam transitus obtingit, cccl. stadia, vel aut alii volunt xlvi. mille passum remota ; ab eadem civitate ducta est viâ Guethelinga dicta, usque in Segontium per m.p. cccxxiiii., plus minus, *sic* : Cantiopolis, etc.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Benonis, 9	Venonis, 12	High Cross (Leicestershire)
Hic bisecatur viâ Alter - utrumque ejus Brachium Lindum, usque alterum versus Viricorium prodentitur sic	(Iter 2, inverted)	Here the road divides into two branches, one of which runs towards Lincoln, and the other to Wroxeter.
Manduessedo, 12	Manduessedo, 12	Manceter (Warwickshire)
Etoceto, 13	Etoceto, 16	Wall (Staffordshire)
Pennacrucio, 12	Pennacrucio, 12	Station near the river Penk, perhaps Stretton (Staffordshire)
Uxaconia, 12	Uxacona, 12	Redhill, near Shiffnal, or Oakengate, near Wembridge (Shropshire)
Viriconio, 11	Uriconio, 11	Wroxeter (Shropshire)
Banchorio, 20	(Iter 11)	Bangor (Bovium in Antoninus' second iter) in Flintshire
Deva Colonia, 10	Dev. Leg. 20 Vict., 10	Chester.
Varis, 30	Varis, 32	Bodfari, near Denbigh (Counties of Flint and Denbigh)
Conovio, 20	Conovio, 19	Caer Hun in the Vale of the Conway (Caermarthenshire)
Segontio, 24	Segontio, 24	Caer Seiont, near Caernarvon, on the coast of the Irish Sea (Caernarvonshire)

Latin Names of Stations.		English Names of Stations.
Iter II.		*Second Journey.*
A Segontio Viriconium usque, m.p. 73, *sic.*		From Caer Seiont to Wroxeter.
RICHARD.	**ANTONINUS.**	
Heriri Monte, 25	No corresponding Iter	Tommen-y-mur, in the Valley of M a e n t r w g * (Merionethshire)
Mediolano, 25		A station on the Tanad, perhaps Meivod (Mont-gomeryshire)
Rotunio, 12		Rowton (Shrop-shire)
Viriconio, 11		Wroxeter (Shrop shire)
Iter III.		*Third Journey.*
A Londinio Lindum coloniam usque, *sic.*†		From London to Lincoln.
	(Iter 9)	
Durosito, 12	Durolitum, 15, 6	Near Romford (Es-sex) or Leyton (Essex)
Cæsaro Mago, 16	Cæsaromagum, 16, 26	Chelmsford (Essex)
Canonio, 15	Canonium, 12	Near Kelvedon on the Pant (Essex)
Camaloduno	Camalodunum, 9, 8	Colchester (Essex)

* Snowdon was also named Heriri Mons, a name, according to Dr. Stukeley, due to the eagles inhabiting the place, but, according to Dyer, derived from *eis*, snow, and *ire*, land ('Vulgar Errors, Ancient and Modern,' p. 57).

† Richard gives no total of mileage for this Iter, with regard to which Dyer says 'there are so many uncertain stations that we cannot trace the roads' ('Vulgar Errors, Ancient and Modern,' p. 58). Nor does he do so for any of the subsequent ones, the first and second being the only Itinera in which the entire distance of the route is stated at the beginning, as, it will be remembered, is always the case in the Itinera of Antoninus.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Colonia, 9 Ibi erat Templum Claudii, Arx Triumphalis, et Imago Victoriæ Deæ		Here were a temple of Claudius, a triumphal arch, and an image of the Goddess of Victory
Ad Sturium Amnem, 6 Et finibus Trinobantum Cenimanos advenis	Ad Ansam, 6	Stratford, near Ipswich (Suffolk), or a station on the Stour, on the border of Essex. This was limit of the territory of the Trinobantes
Cambretonio, 15	Cambretonium, 15	Burgh, near Woodbridge (Suffolk), or Stretford, near Saxmundham (Suffolk)
Sito Mago, 22	Sitomagum, 22	Dunwich (Suffolk), or Woolpit, near Stowmarket (Suffolk)
Venta Cenom, 23	Venta Icenorum, 31, 32 (Iter 5)	Caistor, near Norwich (Norfolk)
	Icianos, 31	Chelmsford (Essex) probably, but perhaps Icklingham (Suffolk)
Camborico Colonia	Camboricum, 35	Cambridge
Duroliponte, 20	Durolipontem, 35, 18	Godmanchester (Huntingdonshire)
Durno Mago, 20	Durobrivas, 35	Castor on the Nen (Northamptonshire)
Isinis, 20	Causennim, 30	Ancaster (Lincolnshire)
Lindo, 18, 20	Lindum, 26, 36, 30	Lincoln

RICHARD.	ANTONINUS.	ENGLISH NAMES OF STATIONS.

LATIN NAMES OF STATIONS.

Iter IV.

A Lindo ad Vallum usque, *sic.*

ENGLISH NAMES OF STATIONS.

Fourth Journey.

From Lincoln to the Wall.

RICHARD.	ANTONINUS.	
	(Iter 5)	
Argolico, 14	Segelocum, or Agelocum in Iter 8, 24, 14,	Littleborough (Nottinghamshire)
Dano, 20	Danum, 21	Doncaster (Yorkshire)
Ibi intras Maximam Cæsariensum		Here the road enters the province of Maxima Cæsariensis
Legotio	Legolium	Castleford (Yorkshire, West Riding)
Eburaco Municip. olim Colonia Sexta, 21	Eburacum, 21	York, a municipium, formerly Colonia Sexta headquarters of the VIth and IXth Legions
Isurio, 16	Isurium, 16, 17	Aldborough (Yorkshire, West Riding)
Gatteractoni, 24		Cattarick on the Swale (Yorkshire, North Riding)
	(Iter 1, inverted)	
Ad Tisam, 10		Piercebridge on the Tees
		Near Darlington (Durham)
Vinovio, 12	Vinovium, 22	Binchester, near Bishop Auckland (Durham)
Epiaco, 18		Near Lanchester (Durham)
Ad Murum		(To the Wall of Hadrian). Probably the station of Hunnum, Halton Chester (Northumberland)

LATIN NAMES OF STATIONS.		ENGLISH NAME STATIONS.
RICHARD.	ANTONINUS.	
Trans Murum intras Valentiam		Across the W into Valentia
Alauna Amne, 25		Brinkburn on tl Coquet, in paris of Long Fram lingham (North-umberland)
Tueda Flumine, 30		A station on the Tweed, probably at West Ford, near Berwick
Ad Vallum		Probably Camelon, near Falkirk (co. Stirling)

Iter V.		*Fifth Journey.*
A limite Præturiam usque, *sic.*		From the Wall to Flamborough Head.
Curia, 29		Currie, near Edin-burgh, or Borth-wick Castle (Edinburgh)
Ad Fines,* 22	(Iter 1)	Chew Green, at the head of the Co-quet River, on the Northumberland border
Bremenio, 30	Bremenium	Roechester (North-umberland)

* Ad Fines. This name occurs also for totally different places in Iter XVII. and XVIII. D'Anville observes (notice, etc., Ad Fines) that there would be an infinite number of places with this name if, in addition to those which appear in the records of the Roman period, we were to enumerate all the instances in which this name occurs, and which the Roman records do not mention. It is in the old roads between the towns that *milliaria* mark the 'places called Fines' (see Art. 'Amerly G. Longell Arc,' in Dr. Smith's 'Dictionary of Greek and Roman Geography,' p. 900). It seems possible that the term may have had some connection with the boundaries of territories, and perhaps been a popular rendering of *limites*, the limits of a colonial territory.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Corstopolio, 20	Corstopitum, 20	Corbridge (Northumberland)
Vindomora, 9	Vindomoram, 9	Ebchester (Northumberland border)
Viudovio, 19	Vinoviam, 19	Binchester, near Bishop Auckland (Durham)
Cateractoni, 22	Catteractonem, 22	Cattarick on the Swale
	Isurium, 24	Aldborough (Yorkshire)
Eburaco, 40	Eburacum, 13, 18, 14	York
Derventione, 7	Derventionem, 7	Station on the Derwent. Perhaps Old Malton (Yorkshire)
Delgovicia, 13	Delgovitiam, 13	Station near Millington (Yorkshire)
Præturio, 25	Prætorium, 25	Flamborough Head (Yorkshire, East Riding)

Iter VI.		*Sixth Journey.*
Ab Eboraces Devam usque, *sic.*		From York to Chester.
	(Iter 2)	
Calcaria, 9	Calcarim, 9	Tadcaster (Yorkshire)
Camboduno, 22	Cambodunum, 30, 20	Slack (Yorkshire)
Mancunio, 18	Mamucium, 23, 18	Manchester
Finibus Maximæ et Flaviæ, 5		On the confines of Maxima Cæsariensis and Flavia Cæsariensis (Stretford on the Mersey, Lancashire, according to Dyer)

Latin Names of Stations.		English Names of Stations.
RICHARD.	**ANTONINUS.**	
Condate, 18	Condate, 18	Kinderton (or perhaps Northwich), in Cheshire
Deva, 18	Devam Leg. XX. Vict., 20	Chester
Iter VII.		*Seventh Journey.*
A Portu Sistuntiorum Eboracum usque, sic.		From Freckleton, on the mouth of the Ribble (Lancashire), to York.
Rerigonio, 23		Ribchester (Lancashire), according to Dyer, but uncertain*
Ad Alpes Peninos, 8		A ridge of hills on the Yorkshire border. Dyer makes the station at Burrens, in Broughton (Yorkshire)
Alicana, 10	(Iter 2)	Ilkley on the Wharfe (Yorkshire, West Riding)
Isurio, 18	Isurium	Aldborough (Yorkshire, East Riding)
Eboraco, 16	Eboracum, 18, 17	York

* Other authorities have placed Coccium at Ribchester. The Revigonium or Rhetigonium of Ptolemy appears to have been in Galloway, and was probably Stranraer in Wigtonshire. Revigonio would seem, therefore, to be meant for Rhigoduno, the Rhigodunum of Ptolemy being believed by Camden to be Ribchester, though by Horsley and others to be Warrington in Lancashire, and by others, again, to be Richmond in Yorkshire. Ribchester certainly answers best to the route of the Iter, which appears to run pretty well in a straight line from the mouth of the Ribble to York, but does not correspond to the distance given by Richard, being thirteen instead of twenty-three miles from Freckleton. It is therefore impossible to decide definitely as to the site of the station.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.

Iter VIII. — *Eighth Journey.*

Ab Eburaco Luguvallium usque, *sic.* — From York to Carlisle.

RICHARD.	ANTONINUS. (Iter 2)	
Cataractoni, 40	Cataractonem, 41, 42	Cattarick on the Swale (Yorkshire, North Riding)
Lataris, 16	Lavatrim, 16, 17, 12, 21 (Iter 5, 18)	Bowes (Yorkshire, North Riding)
Vataris, 16	Verterim, 14 (Iter 5, 13)	Brough (Westmoreland)
Brocavonacis, 18	Brovonacim, 13, 20	Kirkby, Thore (Westmoreland)
Voreda, 18	Voredam, 13	Probably old Penrith (Cumberland)
Lugubalia, 18	Luguvallum, 14	Carlisle

*Iter IX.** — *Ninth Journey.*

A Luguballio Ptorotonium usque, *sic.* — From Carlisle to Burghead.

Trimontio	No corresponding Iter	Eildon Hills (parish of Montrose in Roxburghshire)
Gadanica		Uncertain.
Corio		Probably Curia of the fifth Iter— viz., Currie, near Edinburgh, or Borthwick Castle (Edinburghshire)

* It will be noticed that in no less than six of the stations the distances are omitted.

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Latin Names of Stations.

RICHARD.	ANTONIUS.	ENGLISH NAMES OF STATIONS
Ad Vallum		Probably Ca... near Fa... (co. Stirling...
Incipit Vespasiana		The commence... of Vespasian...
Alauna, 12		Probably Kei... (Dumfriesshi...
Lindo, 9		Probably Ar... (Perthshire)
Victoria, 9		Probably Deal... ross Farm, at ... confluences of ... rivers Earn ... Ruchill in Stra... earn (Perthshi...
Ad Hiernam, 9		Probably Stra... eath, eight mil... from Dealginros... on the sout... bank of the Ear... (Perthshire)
Orrea, 14		Probably Bertha, near the mouth of the Almond River (Perthshire)
Ad Tavum, 19		Probably Invergowrie, near estuary of the Tay at Dundee (Forfarshire)
Ad Æsicam, 23		Probably on the South Esk at Brechin (Forfarshire)
Ad Tinam, 8		Probably at North Esk, in Logie parish (Forfarshire)
Devana, 23		Old Aberdeen, or Norman Dykes (Aberdeenshire).
Ad Itunam, 24		On the Ythan River, probably at Glenmailen (Aberdeenshire)
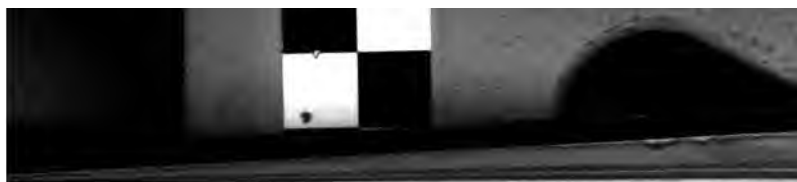
LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Ad Montem Grampium		Mormond Hill, near Strichen (Aberdeenshire), or near Knock Hill, in parish of Grange (Banffshire)
Ad Selinam		Near Deskford on the Cullen (Banffshire), or at Banff
Tuessis, 19		Probably Gordon Castle, near Fochabers (Morayshire)
Ptorotone		Burghead (Moray, or Elginshire)
	Iter X.	*Tenth Journey.*
Ab ultima Ptorotone per Mediam Insulæ Isca Damnonorum usque, *sic.*		From Burghead through the centre of the island to Exeter.
Varis, m.p., 8		Forres (Morayshire)
Ad Tuessim, 19		Cromdale on the Spey (Invernessshire)
Tamea, 29		Braemar Castle (Aberdeenshire)
—— 21		Perhaps Barra Castle on the Isla
In Medio, 9		Probably Inchtuthill on the Tay (Perthshire)
Orrea, 9		Probably Bertha, at the mouth of the Almond River (Perthshire)
Victoria, 18		Probably Dealginross, at the confluence of the rivers Earn and Ruchill in Strathearn (Perthshire)

Latin Names of Stations.		English Names of Stations.
RICHARD.	ANTONINUS.	
Ad Vallum, 32		Probably Camelon, near Falkirk (Stirlingshire)
Lugubalia, 80		Carlisle
Brocavonacis, 22	Brocavum	Brougham (Westmoreland)
Ad Alaunum	*Cf.* Iter 10	Lancaster
Coccio	Coccium, 20	Ribchester (Lancashire)
Mancunio, 18	Mancunium, 18	Manchester
Condate, 23	Condate, 18	Kinderton in Cheshire
Mediolano, 18	Mediolanum, 18	Station on the Tanad (Montgomeryshire)
Etoceto		Wall (Staffordshire)
Salinis, m.p.	*Cf.* Iter 13	Probably Droitwich (Worcestershire)
Glebon Colon, m.p.	Glevum	Gloucester
Corino, 14	Durocornovium, 14	Cirencester (Gloucestershire)
Aqua Solis, m.p.		Bath (Somerset)
Ad Aquas, 18		Wells (Somerset)
Ad Uxellam Amnem, m.p.		Bridgewater (Somerset)
Isca, m.p.		Exeter

Iter XI.		*Eleventh Journey.*
Ab Aquis, per Viam Juliam Menapiam usque, *sic.*		From Bath by the Via Julia to St. David's.
	(Iter 14, inverted)*	
Ad Abonam, 6	Trajectum, 6	Bitton on the Avon (Gloucestershire)
Ad Sabrinam, 6	Abonam, 9	Sea Mills, near the Avon mouth (Gloucestershire)

* See *ante*, notes on Iter XIV. of Antoninus, p. 211.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Unde Trajectu intras in Britanniam Secundam et stationem Trajectum, 3		Aust, near Thornbury, where there was a passage over the Severn into Britannia Secunda
Venta Silurum, 8	Ventam Silurum, 9	Caerwent (Monmouthshire)
Isca Colonia, unde fuit Aaron Martyr, 9	Iscam, 9	Caerleon (Monmouthshire), the birthplace of Aaron the Martyr
Tibra Amne, 8	(Iter 12, inverted)	A station on the river Taaf
Bovio, 20	Bomium, 27, 18, 28, 15	Ewenny (Glamorganshire)
Nido, 15	Nidum, 15	Neath (Glamorganshire)
Leucaro, 15	Leucarum, 15	Lloughor (Glamorganshire)
(Muridunum omitted, 20)		Caermarthen (Caermarthenshire)*
Ad Vigessimum, 20		(The twentieth milestone.) Castell Fleming (Cardiganshire)
Ad Menapiam, 18 Ab hac Urbe per m.p. 30. Navigas in Hyberniam		St. David's (Pembrokeshire), whence there was a sea passage to Ireland

Iter XII.		*Twelfth Journey.*
Ab Aquis Londinium usque, *sic.*		From Bath to London.
	(Iter 14)	
Verlucione, 15	Verlucionem, 15	Highfield in Sandy Lane, near Heddington (Wilts)

* See notes on Iter 12, *ante*, p. 210.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Cunetione, 20	Cunetionem, 20	Folly Farm, near Marlborough (Wilts)
Spinio, 15	Spinas, 15	Speen, near Newberry, Berkshire
Caleba Atrebatum, 15	Calevam, 15	Silchester (Hampshire)
Bibracte, 20	Pontes (Iter 7), 22	Perhaps Windsor according to Richard, Staines (Middlesex) according to Antonine*
Londinio, 20	Londinium, 22	London

Iter XIII.

Ab Isca Uriconium usque, sic.

(Iter 12)

Thirteenth Journey.

From Caerleon to Wroxeter.

Bultro, m.p., 8	Burrium, 9	Usk (Monmouthshire)
Gobannio, 12	Gobannium, 12	Abergavenny (Monmouthshire)
Magna, 23	Magnam, 22	Kenchester (Herefordshire)
Branogenio, 23	Bravonium, 22, 24	Near Leintwardine, near Ludlow (Herefordshire)
Uriconio, 27	Viriconium, 27	Wroxeter (Shropshire)

Iter XIV.

Ab Isca per Glebon, Lindum usque, sic.

Fourteenth Journey.

From Caerleon through Gloucester to Lincoln.

Bullio or Bultro, 8	Burrium or Bullium, 8	Usk (Monmouthshire)

* The site of Bibracte is extremely uncertain, but Dyer places it at Windsor. See his argument in ' Vulgar Errors, Ancient and Modern,' pp. 112-118.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Blestio, 12	Blestium, 11	Monmouth
Sariconio, 11	Ariconium, 11	Near Ross (Herefordshire)
Glebon Colonia, 15	Glevum, 15	Gloucester
Ad Antonam, 15		Station on the Warwickshire Avon
Alauna, 15		Alcester on the Alne (Warwickshire)
	(Iter 6)	
Venonis, 12	Vennonim	High Cross (Leicestershire)
Ratis Corion, 12	Rates, 12	Leicester
Venromento, 12	Verometum, 12, 13	Willoughby (Nottinghamshire)
Margiduno, 12	Margidunum, 14, 13, 12	Near Bridgeford on the Trent (Nottinghamshire)
Ad Pontem, 12	Ad Pontem, 7	Near Farndon, near Newbury (Nottinghamshire)
Crococolana	Crococolanum, 7	Brough (Lincolnshire)
Lindum, 12	Lindum, 14, 12	Lincoln
Iter XV.		*Fifteenth Journey.*
A Londinio per Clausentum in Londinium usque, *sic.*		From London through Bitterne, on Southampton Water, and back again to London.
	(Iter 7)	
Caleba, m.p. 44	Callevam, 44	Silchester
	(Iter 12 and 15.)	
Vindomi, 15	Vindomim, 15	Near Finchley, between Andover and St. Mary Bourne (Hants)
Venta Belgarum, 21	Venta Belgarum, 21	Winchester (Hants)
	(Iter 7, inverted)	
Ad Lapidem, 6		Uncertain, but perhaps Stoneham, near Southampton (Hants)

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Clausento, 4	Clausentum, 10	Bitterne, on Southampton Water (Hants)
Portu Magno, 10		Porchester, near Portsmouth (Hants)
Regno, 10	Regnum, 20	Chichester (Sussex)
Ad Decimum, 10		(The tenth milestone.) Uncertain, but perhaps a station on the Avon
Anderida Portu		Pevensey (Sussex)
Ad Lemanum, 25		A station on the Lyme River
Lemaniano Portu, 10		Lympne (Kent)
Dubris, 10		Dover (Kent)
Rhutupis Col., 10	(Iter 2, inverted)	Richborough (Kent)
Regulbio, 10		Reculver (Kent)
Cantiopoli, 10	Durovernum	Canterbury
Durolevo, 18	Durolevum, 21	Davington or Milton (Kent)
Mado, 12		Perhaps (Durobrivis), Rochester, according to Dyer, or perhaps a station on the Medway
Vagnaca, 18	Vagniacim, 22	Perhaps South Fleet or North Fleet (Kent)
Noviomago, 18	Noviomagum, 6, 18	Holmwood Hill, in Bromley (Kent), or near Croydon (Surrey)
Londinio, 15	Londinium, 12, 10	London

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
Iter XVI.		*Sixteenth Journey.*
A Londinio Ceniam usque, *sic.*		From London to a station on the Fal, in Cornwall.*
RICHARD.	**ANTONINUS.** (Iter 7)	
Venta Belgarum, 90	Venta Belgarum, 76 (Iter 12 and 15)	Winchester (Hampshire)
Brige, 11	Brige, 8, 11	Broughton (Hampshire)
Sorbioduno, 8	Sorbiodunum, 11, 8, 9	Old Sarum (Salisbury, Wilts)
Ventageladia, 12	Vindogladium, 12, 15, 13	Blandford (Dorsetshire) or Cranbourne (Dorsetshire)
Durnovaria, 9	Durnovarium, 9, 16, 36, 8	Dorchester (Dorsetshire)
Moriduno, 33	Moridunum, 16, 36	Honiton or Seaton (Devonshire)
Isca Dunm, 15.	Isca Dumnoniorum, 15	Exeter
Durio Amne		A station on the Dart (Devon)
Tamara		A station on the Tamar; supposed by some to be Tamerton, near Plymouth (Cornwall)
Voluba		A station on the Fowey or perhaps on the Fal (Cornwall)†
Cenia		A station on the Fal (Cornwall)

* Dyer places this station 'on the lake between Truro and Pendennis, or at one of these places.' Wright, however, places it on the river Fal. All these latter stations of this Iter, however, appear to be conjectural only.

† If we assume Voluba to be on the Fowey, Lostwithiel would seem to answer the purposes of this Iter, but Camden and others have placed it at Falmouth and Uxela at Lostwithiel.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
Iter XVII.		*Seventeenth Journey.*
Ab Anderida Eboracum usque, *sic.*		From an unknown station in the Sylva Anderida to York.
RICHARD.	ANTONINUS. (Iter 5)	
(Sylva) Anderida		A station in the midst of the Forest of Anderida (probably Pevensey)
Noviomago		Holmwood Hill, in Bromley (Kent)
Londinio, 15		London
Ad Fines		Broughing or Braughin, near Ware, at the confluence of the rivers Rib and Quin (Herts)
Durolisponte	Duralipontem	Godmanchester (Huntingdon)
Durnomago, 30	Durobrivas, 35	Castor on the Nen (Northants)
Corisennis, 30	Causennim, 20, 30	Ancaster (Lincolnshire)
Lindo, 30	Lindum, 36, 26	Lincoln
In Medio, 15		Uncertain
Ad Abum, 15		A station on the Humber, perhaps Winterton (Lincolnshire)
Unde transis in Maximam		
Ad Petuariam, 6		Probably Borough on the Humber (Yorkshire)
Deinde Eburaco ut supra, 46		To York

Latin Names of Stations.	English Names of Stations.
Iter XVIII.	*Eighteenth Journey.*
Ab Eburaco per Medium Insulæ Clausentum usque, *sic.*	From York through the centre of the island to Bitterne, on Southampton Water.
RICHARD.	
ANTONINUS. (Iter 2)	
Legolio, m.p., 21	Castleford, at the confluence of the Aire and Calder Rivers (Yorkshire, West Riding)
Ad Fines, 18	Said to be Templeborough on the Don (Yorkshire)*
———— 16	Perhaps near Chesterfield (Derbyshire)†
———— 16	Perhaps near Penkridge, on the Penk River (Staffordshire)‡
Derventione, 16	Little Chester, on the Derwent
Ad Trivonam, 12	Bury, in Branston (Staffordshire)

* Templeborough is also identified with Morbium by some authorities, but the weight of authority seems in favour of placing Morbium at Moresby, near Whitehaven (Cumberland), on the western coast. It was a Notitia station, where some of the Cataphracteridæ (Roman auxiliary horse) were quartered, and an inscription recording these troops has been found at Moresby, thus affording with the name satisfactory evidence of the identity of the two places. See 'The Celt, the Roman, and the Saxon,' p. 166, and 'Ad Morbum,' by Mr. C. Roach Smith, in Dr. Smith's 'Dictionary of Greek and Roman Geography,' p. 370.

† The Latin name of Chesterfield was Lutudarum. Here the metals from the mining districts of the Peak were brought for transportation to the south or north of the island.

‡ The Latin name of this station would seem to have been Pennocrucium.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
RICHARD.	ANTONINUS.	
Etoceto, 12	Etocetum	Wall (Staffordshire)
Manduessedo, 16	Manduessedum, 6, 16	Manchester War- wickshire
Bennonis, 12	Venonim, 12	Holy Cross (Leices- tershire)
	(Iter 6, inverted)	
Tripontio, 11	Tripontium, 9	Dovebrook, near Lilbourne, near Rugby (North- amptonshire)
Isannavaria, 12	Isannavatia, 12	Near Daventry (Northampton- shire)
Brinavis, 12		Black Ground, near Chipping Norton (Oxfordshire)
Ælia Castra, 16		Alcester (Oxford- shire), near Bi- cester
Doracina, 15		Dorchester (Ox- fordshire)
Tamesi, 6		A station on the Thames. Per- haps Sinodun Hill (Berks) or Wallingford (Berks)
Vindomi, 15		Near Finkley, be- tween Andover and St. Mary Bourne (Hants)
Clausento, 46		Bitterne, on South- ampton Water (Hants)

APPENDIX III

THE NOTITIA IMPERII, SO FAR AS IT RELATES TO THE MILITARY STATIONS ON THE SAXON SHORE AND ALONG THE ROMAN WALL.*

LATIN NAMES OF STATIONS AND TROOPS.	ENGLISH NAMES OF STATIONS AND TROOPS.
Sectio LII.	*Chapter LII. (part of).*
Sub dispositione viri spectabilis Comitis Littoris Saxonici per Britanniam :	Under the Government of the honourable the Count of the Saxon Shore in Britain :
Præpositus numeri Fortensium Othonæ	The Commander of a detachment of Fortenses at Othona (Essex)
Præpositus numerum Tungricanorum Dubris	The Commander of the Tungrian soldiers at Dover (Kent)
Præpositus numeri Turnacensium Lemanis	The Commander of a detachment of soldiers of Tournay at Lympne (Kent)
Præpositus equitum Dalmatarum Branodunensis, Branoduno	The Commander of the Dalmatian Horse styled Branodunensis at Brancaster (Norfolk)
Præpositus equitum Stablesian. Gariannonensis Gariannono	The Commander of the Stablesian Horse styled Gariannonensis at Burgh Castle (near Yarmouth, Norfolk)
Tribunus cohortis primæ Vetasiorum Regulbio	The tribune of the first cohort of Vetasians (or Betasians) at Reculver (Kent)

* For the text of the Notitia, see ‘Britannia Romana,’ pp. 475-479 ; and for Horsley’s essay on it, see *ibid.*, pp. 472-489.

Latin Names of Stations and Troops.	English Names of Stations and Troops.
Præpositus legionis secundæ Augustæ Rutupis	The Commander of the second legion called Augusta at Richborough (Kent)
Præpositus numeri Abulcorum Anderidæ	The commander of a detachment of the Abulci at Pevensey (Sussex)
Præpositus numeri exploratorum portu Adurni	The Commander of a detachment of scouts at Bramber Castle (Sussex)
Sectio LXIII.	*Chapter LXIII. (part of).*
Sub dispositione viri spectabilis Ducis Britanniarum :	Under the Government of the honourable the Duke of Britain :
Præfectus legionis Sextæ	The Prefect of the sixth legion (at York)
Præfectus equitum Dalmatarum Præsidio	The Prefect of the Dalmatian Horse at Broughton (Lincolnshire)
Præfectus equitum Crispianorum Dano	The Prefect of the Crispian Horse at Doncaster (Yorkshire)
Præfectus equitum cataphractariorum Morbio	The Prefect of a body of cuirassiers at Templeborough (Yorkshire)
Præfectus numeri Barcariorum Tigrisiensium Arbeia	The Prefect of a detachment of the Barcarii Tigrisienses at Moresby (Cumberland)
Præfectus numeri Nerviorum Dictensium Dicti	The Prefect of a detachment of the Nervii called Dictenses at Ambleside (Westmoreland)
Præfectus numeri vigilum Concangio	The Prefect of a detachment of soldiers employed on the Watch at Kendal (Westmoreland)
Præfectus numeri exploraturum Lavatris	The Prefect of a detachment of scouts at Bowes (Yorkshire)
Præfectus numeri directorum Verteris	The Prefect of a detachment styled directores at Brough (Westmoreland)
Præfectus numeri defensorum Braboniaco	The Prefect of a detachment called defensores at Overborough

Latin Names of Stations and Troops.	English Names of Stations and Troops.
Præfectus numeri Solensium Maglove	The Prefect of a detachment of Solenses at Greta Bridge (Yorks)
Præfectus numeri Pacensium Magis	The Prefect of a detachment of Pacenses at Piercebridge (near Darlington, Durham)
Præfectus numeri Longovicariorum Longovico	The Prefect of a detachment of the Longovicarii at Lancaster
Præfectus numeri Derventionensis Derventione	The Prefect of a detachment styled Derventionensis at Little Chester on the Derwent
Item per lineam valli.	Also along the line of wall.
Tribunus cohortis quartæ Lergorum Segeduno	The tribune of the fourth cohort of the Lergi at Wallsend (near Newcastle, Northumberland)
Tribunus cohortis Cornoviorum Ponte Ælii	The tribune of the cohort or Cornovii at Newcastle (Northumberland)
Præfectus alæ primæ Astorum Conderco	The Prefect of the first wing of the Asti at Benwell (Northumberland)
Tribunus cohortis primæ Frixagorum Vindobala	The tribune of the first cohort of the Frixagi at Rutchester (Northumberland)
Præfectus alæ Savinianæ Hunno	The Prefect of the wing styled Saviniana at Halton Chesters
Præfectus alæ secundæ Astorum Cilurno	The Prefect of the second wing of the Asti at Walwick Chesters
Tribunus cohortis primæ Batavorum Procolitia	The tribune of the first cohort of the Batavi at Carrawburgh
Tribunus cohortis primæ Tungrorum Borcovico	The tribune of the first cohort of the Tungri at Housesteads
Tribunus cohortis quartæ Gallorum Vindolana.	The tribune of the fourth cohort of the Gauls at Little Chester or Chesterholm

Latin Names of Stations and Troops.	English Names of Stations and Troops.
Tribunus cohortis primæ Astorum Æsica	The tribune of the first cohort of the Asti at Great Chesters
Tribunus cohortis secundæ Dalmatarum Magnis	The tribune of the second cohort of the Dalmatians at Carvoran
Tribunus cohortis primæ Æliæ Dacorum Amboglana	The tribune of the first cohort of the Dacians called Ælia at Burdoswald
Præfectus alæ Petrianæ Petrianis	The Prefect of the wing called Petriana at Cambeck fort
Præfectus numeri, Maurorum Aurelianorum Aballaba	The Prefect of a detachment of the Moors styled Aureliani at Watchcross
Tribunus cohortis secundæ Lergorum Congavata	The tribune of the second cohort of the Lergi at a place uncertain, but perhaps Stanwicks.
Tribunus cohortis primæ Hispanorum Axeloduno	The tribune of the first cohort of Spaniards at Bowness (perhaps)
Tribunus cohortis secundæ Thracum Gabrosenti	The tribune of the second cohort of the Thracians at Burgh-in-Sands (perhaps)
Tribunus cohortis primæ Æliæ classicæ Tunnocleo	The tribune of the first marine cohort called Ælia at Bamburgh
Tribunus cohortis primæ Morinorum Glannibanta	The tribune of the first cohort of the Morini at, perhaps, Lanchester, but extremely uncertain
Tribunus cohortis tertiæ Nerviorum Alione	The tribune of the third cohort of the Nervii at Whitley Castle
Cuneus Armaturarum Brematenraco	A body of men in armour at Brampton
Præfectus alæ primæ Herculeæ Olenaco	The Prefect of the first wing called Herculea at Old Carlisle
Tribunus cohortis sextæ Nerviorum Virosido	The tribune of the sixth cohort of the Nervii at Maryport Ellenburgh (Cumberland)

APPENDIX IV

THE STATIONS MARKED IN THE PEUTINGERIAN TABLE (SO FAR AS IT RELATES TO BRITAIN) COMPARED WITH CORRESPONDING PORTIONS OF ANTONINE'S ITINERARY.*

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
Sets of names on roads marked in the Peutingerian Table.	Corresponding sets of names in the Itineraries of Antoninus.	
First Set.	*Ninth Iter.*	
Ad Tavm, xxii.	Venta Icenorum	Caistor (Norfolk)
Sinomagi, xv.	Sitomago, m. p. xxi.	Dunwich (Suffolk) or Woolpit, near Stowmarket (Suffolk)
Convetoni, xv.	Combertonio, m.p. xxii.	Burgh, near Woodbridge (Suffolk), or Stretford, near Saxmundham (Suffolk)
Ad Ansam	Ad Ansam, m.p. xv.	Stretford, near Ipswich (Suffolk), or a station on the Stour on the Essex border

* Extracted from Ward's ' Essay on the Peutingerian Table ' in Horsley's ' Britannia Romana,' pp. 505-520.

LATIN NAMES OF STATIONS.		ENGLISH NAMES OF STATIONS.
Second Set.	*Ninth Iter.*	
Baromaci, xii.	Cæsaromago, m.p. xii.	Chelmsford (Essex)
Cavnonio, viii.	Canonio, m.p. ix.	Near Kelvedon on the Pant (Essex)
Camvlodvno, v.	Camoloduno, m.p. vi.	Colchester (Essex)
Ad Ansam	Ad Ansam	Stretford, near Ipswich (Suffolk), or a station on the Stour on the Essex border
Third Set.	*Second Iter.*	
Madva, xvii.	Vagniacis	(Perhaps) South Fleet or North Fleet (Kent)
Raribis, vii.	Durobrivis, m.p. ix.	Rochester (Kent)
Borolevo, vii.	Durolevo, m.p. xvi.	Davington or Milton (Kent)
Dvroavervs	Duroverno, m.p. xii.	Canterbury (Kent)
Fourth Set.	*No corresponding Iter.*	
Ratvpis ⎫ Dvbris ⎪ ⎬ Lemavio ⎭ No number of miles given	Evidently Rutupis, Dubris, Lemanis (*Cf.* Iters 3 and 4)	Richborough ⎫ Dover ⎬ Kent Lympne ⎭
Fifth Set.	*Twelfth and Thirteenth Iters.*	
Isca Dvmnomorvm, xv.	Isca Dumnoniorum, xv.	Exeter
Ridvmo	Moriduno	Honiton (Devon) or Seaton (Devon)

REMARKS FROM WARD'S 'ESSAY ON THE PEUTINGERIAN TABLE.'

First Set of Names.—The discrepancies in numbers are explained by the fact that as in the course of a day's march by the Table there should be, and usually is, no number put after the names of the last station, so in reducing the several stages of such a march to the form of an iter in Antonine the place from which it begins can have none upon the same line with it, unless the name be again repeated and the last place left without one, ' which, I presume, was not thought so

commodious, and therefore the distance between the two first sections is always placed after the second name. Indeed, the limits of the Itinera in Antonine are arbitrary, and fixed at the pleasure of the author, whereas in the Table there seem to be no other boundaries designed to the ways than those of Nature; but this makes no difference with respect to the situation of the numbers which give the distance between station and station' (p. 515). Ad Tavm, according to Gale, was perhaps at Tasburgh on the river Wentfar in Norfolk; hence it was not far from Caistor, the supposed Venta Icenorum.

Second Set of Names.—Ward thinks 'Baromaci' is a corruption of 'Cæsaromago.'

Third Set of Names.—The whole of this set lies in Kent. 'The affinity of the three last names in the two columns and the order of them makes it very probable that the same places are intended in both Itineraries, though two of them are very wrongly spelt in the Table, and the distances are all wide of the truth' (p. 517).

Fourth Set of Names.—None of the Itineraries of Antonine lead either from Rutupis to Dubræ, or from Dubræ to Lemanæ. The last stage of his third Iter goes from Durovernum to Dubræ (Dover), and that of his fourth Iter from Durovernum to Lemanæ (Lympne); but there is no direct way in the Table for either of these stages. The number of miles is not fixed to any of these in the Table (p. 518).

Fifth Set of Names.—Ward remarks that the two stations seem to have changed their places. They are found both in the twelfth and thirteenth Iters of Antonine, 'but the former name is very much disguised in most copies, which may receive light from the Table that comes so near the truth, though in the latter Iter, indeed, Dr. Gale has published both names as they ought to be read' (*ante* It., p. viii, p. 519).

It will be noted that the spelling of some of the names as given by Ward differs slightly from that in the copy of the Table in the texts, in which the spelling adopted by Elton in his 'Origins of English History' has been followed (see pp. 332, 333, and Table VII.). Thus Connetvi becomes Conretoni, Cavnomo becomes Cavnonio, Rotibus becomes Raribis, and Buroauerus becomes Dvroavervs.

APPENDIX V

LIST OF ROMAN TOWNS AND OF SOME OF THE ROMAN CAMPS IN VARIOUS COUNTIES IN ENGLAND AND WALES AND SCOTLAND.

NOTE.—The Latin names of the towns marked thus * are unknown, and those appended in brackets are those given to them by the Saxons after their capture from the Britons. *Cf.* Pearson's 'Historical Maps,' p. 25, and Elton's 'Origins of English History,' p. 374, note 3.

The list of camps includes some originally constructed by the Britons and afterwards occupied by the Romans, as well as those of purely Roman origin. Towns or camps marked thus † were forts on the 'Saxon Shore.'

ENGLAND AND WALES.

BEDFORDSHIRE.

Towns.

Dunstable [Forum Dianæ]
Leighton Buzzard* [Lyden-byrig]

BERKSHIRE.

Towns.

Abingdon* [Seovechesham]
Bensington* [Benesingtun]
Speen [Spinæ]

Camps.

Blewberton, near Aston
East Hampstead
Egham Wick
Goring
Wallingford

BRECKNOCKSHIRE.

Camps.

Cwm, near Llandridod
The Gaer, near Brecon
The Crug, near Brecon
Langenny, near Brecon

BUCKINGHAMSHIRE.

Towns.

Aylesbury* [Æglesbyrig]
Fenny Stratford [Magiovin-tum]

CARDIGANSHIRE.

Towns.

Llanio [Luentinum]

CARNARVONSHIRE.

Towns.

Caer Segont [Segontium]
Caer Hun [Conovium]
Llychwr [Leucarum]

CAMBRIDGESHIRE.

Town.

Cambridge [Camboricum]

Camp.

Chesterford on Gogmagog Hills

CHESHIRE.

Towns.

Chester [Deva]
Nantwich [Salinæ]

Camp.

Buckton Castle, near Kinderton

CORNWALL.

Camps.

Bosense, near Helston
Castle Chun, near Morvah
Trelowarren

CUMBERLAND.

Towns.

Carlisle [Luguvallum]
Netherby [Castra Exploratorum]
Old Carlisle [Olenacum]
Moresby [Morbium]

Camps.

Alston, near Hall Hill
Bueth Castle, near Bewcastle
Castle Steads, near Old Penrith
Ellenborough
Englewood Forest

Ireby
Lanercost
Muncaster, near Carlisle
Orthwaite Hall
Plumbland, near Ward Hill
Redstone, near Graystock
Sothernby Castle, Sowerby
Walls Castle
Ravenglass
Whitbarrow
Willowford, near Gilsland

DERBYSHIRE.

Towns.

Chesterfield [Lutudarum]
Buxton

Camps.

Castle Dykes, near Buxton
Coombe Moss, near Buxton
Mam Tor, near Castleton
Melandin Castle, near Wooley Bridge
Lombards Green, near Broadburn
Parwich, near Broadburn
Pentrich

DEVONSHIRE.

Towns.

Exeter [Isca Damnoniorum]
Honiton [Muridunum]

Camp.

Dembury Down

DORSETSHIRE.

Town.

Dorchester [Durnovaria]

Camps.

Chilcombe
Hod Hill, near Blandford
Lambert's Castle, near Bridport

DURHAM.

Towns.

Binchester [Vinovium]
Ebchester [Vindomorra]

Camps.

Blackwell, near Piercebridge
Cockfield
Maiden Castle, near Durham
South Shields

ESSEX.

Towns.

Caistor [Venta Icenorum]
Chelmsford [Cæsaromagum]
Colchester [Camolodunum]
Leyton, near Romford [Duro-litum]
Kelvedon [Conovium]

Camps.

Ashdon
Bishop's Stortford
Hollingbury
Harlow
Hayes Green, near Messing
Lexdon, near Colchester
Pitchbury Wood, near Sprott's Marsh
St. Peter's Head† [Othona]
Stansted Mount Fitchet

FLINTSHIRE.

Town.

Bodfari [Varæ]

GLAMORGANSHIRE.

Town.

Neath [Nidum]

Camps.

Boverton
Cairau, near Cardiff
Cowbridge
Ewenny
St. Nicholas, near Llantwit

GLOUCESTERSHIRE.

Towns.

Cirencester [Corinium]
Gloucester [Glevum]

Camps.

Abbey, near Alveston
Bitton
Blaize Castle, near King's Weston
Broadridge Green, near Harefield
High Brotheridge (in the Cotswolds)
Bury Hill, near Winterbourne Churchdown
Cleeve Hill, near Cheltenham
Clifton, near Bristol
Crickley Hill, near Whitcomb
Drakestone, near Stinchcombe
Dyrham
Elberton, near Almondsbury
Hornton, near Old Sodbury
Kingsweston
Knole, near Aldmondsbury
Leckhampton
Lydney
Nottingham Hill, near Southam
Oldbury
Painswick Beacon
Stroat, near Tiddenham
Tortworth
Uley Bury
Westridge

HAMPSHIRE.

Towns.

Bitterne [Clausentum]
Porchester [Portus Magnus]
Silchester [Calleva]
Winchester [Venta Belgarum]

Camps.

Hengistbury Head, near Christchurch
Kingscleer

Quarley Hill, near Grateley
St. Katherine's Hill, near Christchurch.

HEREFORDSHIRE.
Towns.
Kenchester [Magna]
Ross [Ariconium]

Camps.
Backbury
Caplar Hill
Credenhill
Dinedor
Weston, near Ross

HERTFORDSHIRE.
Town.
St. Albans [Verulamium]

HUNTINGDONSHIRE.
Town.
Godmanchester [Durolipons]

KENT.
Towns.
Canterbury [Durovernum]
Dover [Dubris]†
Lympne [Portus Lemanis]†
Reculver [Regulbium]†
Richborough [Rutupiæ]†
Rochester [Durobrivæ]
Southfleet, near Gravesend Vagniacæ]

Camps.
Old Borough Hill, near Ightam
Keston, near Hayes

LANCASHIRE.
Towns.
Lancaster [Longovieus]
Manchester [Mancunium]
Overborough [Bremetonaccis]
Ribchester [Coccium]

Camps.
Castlefield, near Manchester
Mellor, near Blackburn

LEICESTERSHIRE.
Towns.
High Cross, near Lutterworth [Venonæ]
Leicester [Ratæ]

LINCOLNSHIRE.
Towns.
Ancaster [Causennæ]
Lincoln [Lindum]

Camp.
Yarborough

MERIONETHSHIRE.
Camp.
Tommen-y-mur, near Trawfynnyd

MIDDLESEX.
Towns.
London [Londinium or Augusta]
Staines [Pontes]

Camp.
The Brill, near Somers Town

MONMOUTHSHIRE.
Towns.
Abergavenny [Gobannium]
Caerwent [Venta Silurum]
Caerleon [Isca Silurum]
Monmouth [Blestium]
Usk [Burrium]

Camps.
Campston Hill
Craig-y-Gaekkig, near Usk
Hardwick, near Chepstow
Lateruan Park, near Caerleon

Madgetts, near Tintern
Newport
Sudbrook, near New Passage

NORFOLK.

Town.

Norwich [Venta Icenorum]

Camps.

Brancaster, near Burnham [Branodunum]†
Burrow Dykes, near South Creake
Caistor†
Castleacre
Castle Rising
Holkham
Horning
North Elmham
Ovington
Tasburgh

NORTHAMPTONSHIRE.

Towns.

Burnt Walls [Isannavana]
Caistor on the Nen [Durobrivæ]
Daventry [Bennaventa]
Towcester [Lactodorum]

Camps.

Alderton
Arbury
Castle Dykes, near Weedon
Coggenhoe
Cotton, near Ringstead
Guilsborough
Irchester
Lilborne on the Avon
Thrapstone

NORTHUMBERLAND.

Towns.

Benwell [Condercum]
Carrawburgh [Procolitia]
Chesters, near Hexham [Cilurnum]
Corchester [Corstopitum]

Halton Chesters [Hunnum]
High Rochester [Bremmenium]
Newcastle [Pons Ælia]
Wallsend [Segedunum]

NOTTINGHAMSHIRE.

Town.

Littleborough on Trent [Agelocum, or Segelocum]

Camps.

Arnold, Sherwood Forest
Bury Hill, near Mansfield
Hexgrave Park, near Kirklington
Mansfield Woodhouse
Oldox, near Oxton

OXFORDSHIRE.

Town.

Dorchester [Dorocina]

Camp.

Bury Hill, near Bicester

PEMBROKESHIRE.

Town.

St. David's [Menapia]

RADNORSHIRE.

Camp.

Llandrindod

SHROPSHIRE.

Towns.

Wroxeter [Uriconium]
Rowton [Rutunium]

Camps.

Burywalls, Hawkestone near Wem
Caynham, near Ludlow
Nordy Bank, Ludlow
The Walls, near Bridgenorth

SOMERSETSHIRE.
Towns.

Bath [Aquæ Solis]
Bridgewater [Uxela]
Ilchester [Ischalis]

Camps.

Bower Walls, near Clifton
Hamden Hill, near Stoke-under-Hamden
Worleberry, near Weston-super-Mare

STAFFORDSHIRE.
Towns.

Chesterton [Mediolanum]
Wall near Litchfield [Étocetum]
Little Chesters [Derventio]

Camps.

Beaudesert
Whitmore

SUFFOLK.
Towns.

Dunwich [Sitomagus]
Icklington [Iciani]

Camps.

Bungay Common, near Dunwich
Burgh Castle,† near Yarmouth.

SURREY.
Camps.

Anstie, near Ockley
Holmesdale, near Bletchingley
Homebury, near Dorking
Tuxbury Hill, near Farnham
Wimbledon

SUSSEX.
Towns.

Bramber Castle [Portus Adurni]†
Chichester [Regnum]
Pevensey [Anderida]†

Camps.

Cissbury, near Findon
Hollingbury Castle, near Brighton
Farnscombe, near Lewes
Seaford

WARWICKSHIRE.
Town.

Manceter [Manduessedum]

Camps.

Brinklow, near Honey Hill
Wappenbury

WESTMORELAND.
Towns.

Ambleside [Alionæ]
Brough [Verteræ]

Camps.

Ardoch, near Greenloaning
Burrow's Hill, near Kirkby Thore
Crackenthorpe Common
Dalton

WILTSHIRE.
Towns.

Old Sarum [Sorbiodunum]
Highfield, near Heddington [Verlucio]
Marlborough [Cunetio]

Camps.

Badbury, near Wansborough
Beirsbury, near Hampshire-gate
Inglebourne, near Malmesbury
Yanesbury

WORCESTERSHIRE.
Town.

Droitwich [Salinæ]

Camp

Bredon Hill

YORKSHIRE.

Towns.

Bowes [Lavatræ]
Castleford [Legiolium]
Cattarick [Cattaractonum]
Doncaster [Danum]
Ilkley [Olicana]
Old Malton [Derventio]
Slack [Cambodunum]
Tadcaster [Calcaria]
York [Eboracum]

Camps.

Barford, near Aldborough
Castleshaw, near Saddleworth
Jack Dykes, near Stanwick
Kirklees

SCOTLAND.

ABERDEENSHIRE.

Town.

Old Aberdeen [Devana]

Camps.

Normandykes, near Peterculter
Rae Dykes on the Ythan

AYRSHIRE.

Camp.

Loudon Hill on the Irvine

BERWICKSHIRE.

Camp.

Channel Kirk, Lauderdale

DUMBARTONSHIRE.

Town.

Dumbarton [Theodosia]

DUMFRIESSHIRE.

Towns.

Birenswark, near Middlebie
[Corda]
Keirfield [Alauna]

Camps.

Lockerby, Annandale
Tassieholm, Annandale

ELGINSHIRE.

Towns.

Burghead [Ptoroton]
Cromdale [Tuesis]

FORFARSHIRE.

Camps.

Battledykes, near Brechin
Campmuir, near Kettins
Harefield, near Kirkbuddo
Kiethock, near Fettercairn

KINCARDINESHIRE.

Camp.

Raedykes, near Stonehaven

KIRKCUDBRIGHTSHIRE.

Town.

Kirkcudbright [Carbantorigum]

LANARKSHIRE.

Town.

Carstairs [Colania]

Camps.

Bodsbury Hill, near Clydesburn
Cleghorn, Clydesdale

PERTHSHIRE.

Towns.

Ardoch, near Crief [Lindum]
Bertha on the Almond, near Perth [Orrea]
Dealginross, near Comrie [Victoria]

Camps.

Ardargie, near Forteviot, Perth
Ardoch [three camps]
Bochastle, near Callander
Buchanty on the Almond, near Dunmore Hill

Cupar Angus, Strathearne
Fendock, near Monzie
Grassy Walls, near Perth
Inchstuthill, near Caputh

RENFREWSHIRE.

Town.

Paisley [Vanduara]

ROXBURGHSHIRE.

Camp.

Carby Hill, near Castleton, Liddesdale.

WIGTONSHIRE.

Town.

Stranraer [Retigonium]

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